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REPORT OF

THE

WATSON

Botanical Exchange Club,

1884-1885.

Referee:—
ARTHUR BENNETT, F.L.S., 107, High Street, Croydon.

Hon. Treasurer:—
P. F. LEE, Phan. Sec. Bot. Sect., Yorks. Naturalists' Union,
West Park Villas, Dewsbury.

Hon. Secretary:—
A. R. WALLER, Low Ousegate, York.

"Labor omnia vincit."

YORK:
William Sessions, 15 & 16, Low Ousegate.
1885.

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BRITISH MUSEUM
B D
NATURAL HISTORY

REPORT.

The Watson Botanical Exchange Club was formed in December, 1884, for the purposes stated in its first rule, viz. : "to promote more intercourse, help, and exchange between working botanists, and particularly with regard to critical species." Invitations were sent out to several botanists in all parts of Great Britain to join the new club, and within six weeks of its formation there were 34 members on its register. This evidently shows that a club of this kind was much wanted. Early in January, 1885, the members were invited to send up plants for the first exchange. which was arranged to take place in February. Twenty-five parcels have been received, containing about 2250 specimens. This generous response on the part of the members has made the first exchange an exceedingly successful one, and considering the short notice the members have had, and the unavoidable omission of a desiderata-list, they are to be congratulated on the result achieved.

Several members have taken advantage of the invitation given in Rule 4, viz.: to send up doubtful specimens for examination; and we are glad that, owing to the great kindness of our referee, Mr. A. Bennett, F.L.S. (who has looked through between one and two hundred doubtful plants), the Club has made a good start towards helping members in their study of critical species.

We are also much indebted to Prof. Babington, Mr. Jas. Backhouse, and the Rev. J. E. Leefe, who have very kindly identified several doubtful specimens of Rubus, Hieracium, and Salix.

A few notes on the plants received are given below. Space will not allow us to do more than just mention the most interesting plants which have been received for examination and distribution.

During the coming season will members keep a good look-out for any plants which seem to differ from their normal types? In particular we would ask that the forms of *Carex* should receive special attention.

A. Rainey Waller,
Hon. Sec.

NOTES ON PLANTS RECEIVED.

From the Rev. E. F. Linton.—A form of *Rosa verticillacantha* Merat, with ascending and rather persistent sepals, Sprowston, Norfolk. *Rosa echinocarpa*, Sprowston. *Hieracium iricum* Fries, with very small stem-leaves, Skye.

5

REV. W. R. LINTON.—*Caltha minor,* a form approaching *radicans,* Canlochan, Forfar. *Bupleurum tenuissimum* L., Perry, Hunts, not recorded for Hunts since Ray's time until last year. *Helosciadium ochreatum,* Frensham Pond, Surrey (for description see Hooker's Student's Flora, third edition). A *Salix* from Turvey, Beds., which is "probably a form of *S. ferruginea* And., as Mr. Bennett called it, but not exactly Anderson's plant or that of 'E. Botany.' The former has a very short style, so much so that Dr. Lindley, in his synopsis, places *S. ferruginea* Borr., under *S. cinerea* L." Rev. J. E. Leefe.*

MR. A. BENNETT, F.L.S.—*Tolypella intricata* Leonh., *Potamogeton Zizii* M. et. K., and *P. decipiens* Nolte, all from Welches Dam, Cambridgeshire.

REV. J. D. GRAY.—A Rose from Stoke by Nayland, Suffolk. "Very near *R. umbellata* Lees, differing only by the greater number of prickles on the upper part of the stem. *R. umbellata* is a var. of *R. rubiginosa*." A. Bennett. *Rosa systyla* Bast., Polstead, Suffolk. New to Vice-County 26, Suffolk W. A Rose from Wiston, Suffolk, "a form of *micrantha* seen from several counties, but no specimen seems named for certain." A. Bennett.

MR. E. STRAKER.—*Carduus pratensis* x *lanceolatus* from Cardigan. *Anthemis tinctoria* L., Maiden Park, Surrey. *Epilobium palustre,* var. *ligulatum* Baker, Filby, Norfolk.

MR. J. E. SUNDERLAND.—A *Carex* from Glen Dole, Forfar, which Mr. Bennett says is "a curious state of *Goodenoughii* Gay (*vulgaris* Fries), similar in appearance to *Gibsoni* of Bab." *Naias graminea* from Reddish.

MR. P. EWING.—*Epilobium alpinum* x *anagallidifolium*, Ben Lavigh, Perth.

MR. R. F. TOWNDROW.—*Agrostis nigra* With. (for description see supp. to Bab. Man.), Malvern, Worcestershire.

MR. A. WHEELER.—*Euphorbia Cyparissias* L. "Hills near Dover, truly wild."

DR. A. DAVIDSON.—*Carex aquatilis,* var. *Watsoni.* Banks of Nith, Sanquhar, Dumfries. An addition to Top. Bot. though known to local botanists.

MR. P. F. LEE.—*Chara vulgaris,* var. *longibracteata,* Coxley Dam, Dewsbury. *Potentilla Norvegica* L., canal-bank at Dewsbury, abundant and rapidly increasing.

MR. F. C. KING.—*Callitriche autumnalis* L., canal, Ashton-on-Ribble, Lancs. An addition to Top. Bot.

MR. J. W. CARR.—*Selinum Carvifolia* L., Chippenham Moor, Cambridge. (For description and plate see Journal of Bot., 1882, p. 120.)

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* Mr. Linton has since informed me that this Salix has been decided to be *S. ferruginea* Forbes. A. R. W.

LIST OF MEMBERS.

Rev. F. H. Arnold, The Hermitage, Emsworth.
Arthur Bennett, F.L.S., 107, High Street, Croydon.
J. W. Carr, 28, Emery Street, Cambridge.
W. N. Cheesman, The Crescent, Selby.
H. K. Cross, care of A. R. Waller, Low Ousegate, York.
J. Cunnack, Helston.
Dr. A. Davidson, Sanquhar, Dumfries, N. B.
P. Ewing, 97, McAslin Street, Glasgow.
J. Fingland, Thornhill, Dumfries, N.B.
Rev. W. Fowler, Liversedge Vicarage, Normanton, Yorks.
H. Goss, Almora, Berrylands Road, Surbiton Hill, Surrey.
Rev. J. D. Gray, Nayland Vicarage, Colchester.
Rev. J. M. Hick, Whickham, Newcastle-on-Tyne.
Miss Hillyer, care of Jas. Slater, Esq., 126, Highbury New Park, London, N.
F. C. King, 2, Clarendon Street, Preston.
P. F. Lee, West Park Villas, Dewsbury.
Rev. E. F. Linton, Sprowston Vicarage, Norwich.
Rev. W. R. Linton, 180, Upper Street, Islington, London, N.
A. E. Lomax, 56, Vauxhall Road, Liverpool.
G. E. Martindale, Staveley, Kendal.
H. T. Mennell, F.L.S., St. Dunstan's Buildings, Great Tower Street, London, E. C.
Miss Milner, The Cottage, Bishopthorpe, York.
J. R. Neve, Campden, Gloucester.
J. Percival, St John's College, Cambridge.
W. Robinson, West Bank, Westbourne Road, Scarborough.
H. Searle, Ashton-under-Lyne.
P. Sewell, Royal Botanical Gardens. Edinburgh.
B. Sharpe, 33, Railway Terrace, York.
Miss Spence, Holgate Hill, York.
E. Straker, Hazelshaw, Kenley, Surrey.
J. E. Sunderland, Bank House, Hatherlow, Stockport.
Miss Todd, 3, Portland Street, Gillygate, York.
R. F. Towndrow, 2, Commercial Buildings, Malvern Link.
A. R. Waller, Low Ousegate, York.
A. Wheeler, Ashentree Lane, Dover.

RULES.

1. The object of the Watson Botanical Exchange Club is to promote more intercourse, help, and exchange between working botanists, and particularly with regard to critical species.

2. The subscription is 2s. 6d. a year, and will be used to defray the expenses of printing, postage, &c. Any surplus will be devoted to increase the work of the club.

3. Members may send to the Secretary, before the 31st of January each year, parcels of plants for distribution, and they will receive in return plants in proportion to the number sent. Several specimens of each plant should be sent, and they should be *good* specimens. Each must have a label giving the name, place where collected, collector's name, and date. *Scraps are of no use.*

4. Members will very much increase the scope and work of the club if they will send for examination any Batrachian Ranunculi, Rosas, Rubi, Callitriches, Hieracia, Potamogetons, Salices, Menthas, Junci, Carices, Charas, &c.,—the study of critical species being one of the principal aims of the club. One specimen of each will be returned to the owner with the corrected name. When Hieracia are sent up for examination the colour of the styles should be stated on the label.

5. No foreign or cultivated plants to be sent unless asked for.

6. Each member must let the Secretary have a London Catalogue of British Plants with a mark against his desiderata. These Catalogues should accompany the parcels. They will be returned in the return parcel. No MS. lists to be sent.

THE

SECOND ANNUAL REPORT

OF THE

WATSON

Botanical Exchange Club,

1885-1886.

Referee :—

ARTHUR BENNETT, F.L.S., 107, High Street, Croydon.

Hon. Treasurer :—

P. F. LEE, Phan. Sec. Bot. Sect., Yorks. Naturalists' Union,
West Park Villas, Dewsbury.

Hon. Secretary :—

A. R. WALLER, Low Ousegate, York,

" Labor Omnia Vincit."

YORK:
William Sessions, Printer, 15, & 16, Low Ousegate.
1886.

RULES.

1. The objects of the Watson Botanical Exchange Club are to promote more intercourse between British botanists, and to study, as much as possible, British plants belonging to critical genera.

2. The subscription is 2s. 6d. a year, and is used to defray the expenses of printing, postage, &c. Any surplus is devoted to increase the work of the club.

3. *a.* Members may send to the Secretary, or the Distributor for the time being, before January 31st., each year, parcels of plants for distribution, and they will receive in return plants in proportion to the number and quality of those sent.

b. Each plant must bear a label giving the name, place where collected, collector's name, and date.

c. Several specimens of each plant should be sent, and they should be *good* specimens. *Scraps are not of the slightest use.*

d. No plants must be sent which are not included in the list of Desiderata for the current year.

e. Each member must let the Distributor have a London Catalogue of British Plants with a mark against his desiderata. These Catalogues should accompany the parcels. They will be returned in the return parcels. No MS. lists to be sent.

f. It would greatly facilitate the work of distributing if the plants in the parcels were arranged in the order in which they are printed in the London Catalogue.

4. Members will very much increase the scope and work of the club if they will send for examination any Batrachian Ranunculi, Rosæ, Rubi, Callitriches, Hieracia, Menthas, Potamogetons, Salices, Junci, Carices, Charas, &c.,—the study of critical species being one of the principal aims of the club. One specimen of each will be returned to the owner after examination.

In the case of Hieracia the colour of the styles should always be stated on the label.

The following quotation from Prof. Babington's "British Rubi," will show what a perfectly diagnosable specimen of a fruticose Rubus should consist of:—"To judge properly of a bramble from a preserved specimen we require a piece of the middle of the stem with more than one leaf; the base and tip of the stem are also desirable. Likewise a piece of the old stem with the flowering shoot attached to it; the panicle with flowers, and the fruit. We likewise want to know the direction of the stem throughout, of the leaflets, and of the calyx; also the shape of the petals and the colour of the styles; a note of these should be made when the specimen is gathered."

REPORT FOR 1885—1886.

As will be seen from the list given below, the number of plants received for distribution during the recent exchange was about 4,754, from 28 members.

The thanks of the members are due to Prof. Babington, who very kindly looked over all the Rubi received, and also to Mr. A. Bennett, F.L.S., for examining several hundred critical plants. I take this opportunity, too, of expressing my personal thanks to Mr. Bennett, who has generously aided me in very many ways, since the formation of the Club.

It has been suggested by some of our members that the Club should join the Linnæa International Association of National and Special Botanical Clubs, for the exchange of dried plants from all parts of the world. I give herewith an extract from a printed circular recently issued by G. E. Hyltén-Cavallius, the Director of the Linnæa Association, and I shall be glad if *each member* will kindly send me word, not later than the 1st of May, his opinion with regard to the proposed arrangement, and also whether he would join the English branch of the Linnæa, if such is formed.

"In the interests of Botanical Science, and in the desire to promote an easy exchange of specimens between Botanists of various countries, we established in 1882 an International Botanical Exchange Club, bearing the name of "Linnæa." This Club has, from the time of its formation down to the present year, worked with much success, and has been the medium of communication between Botanists living in different parts of the world; but we have found by experience that a single Society, like our own, cannot obtain satisfactory results in the international exchange of Botanical specimens, as the work is too heavy for one Club, and the cost of carriage too expensive for distant members. We think that these inconveniences can be remedied by an association of the Exchange Clubs now at work in different parts of the world, and therefore, we are induced to invite such Clubs, as well as Botanists in general, to assist us in establishing an International Association of National and Special Botanical Clubs for the exchange of dried plants from all parts of the world."

ALFRED R. WALLER,

April, 1886. *Hon. Sec.*

NUMBER OF SPECIMENS RECEIVED.

Mr. A. Bennett, F.L.S.	267
Mrs. T. A. Cotton	13
Dr. A. Davidson	81
Mr. P. Ewing	156
Mr. J. Fingland	65
Mr. H. P. Fitz-Gerald, M.C.S.	87
Mr. H. Goss, F.L.S.	53
Rev. J. D. Gray	447
Mr. W. S. Harrison, M.A.	79
Rev. J. M. Hick	13
Miss Hillyer	211
Mr. F. C. King	185
Mr. P. F. Lee	306
Rev. E. F. Linton, M.A.	603
Rev. W. R. Linton, M.A.	706
Mr. A. E. Lomax	220
Mr. G. E. Martindale	145
Mr. H. T. Mennell, F.L.S.	74
Mr. R. Paulson	34
Mr. J. Percival	19
Mr. W. Robinson	316
Mr. A. Somerville, B Sc., F.L.S.	32
Mr. E. Straker	281
Miss Todd	12
Mr. R. F. Towndrow	185
Mr. A. R. Waller	40
Mr. J. T. Walsh	66
Mr. A. Wheeler	58
	4,754

Ranunculus ? Windermere Lake, Westmoreland, July, 1885. Legerunt: J. A. Martindale and G. E. Martindale. These plants were gathered at the same time and place as those which I call *R. reptans*, and I cannot properly distinguish any of them except in point of size. It seems to me that from *R. Flammula* there is a series of forms stretching down to *R. reptans*, so that it is hard to say where the one ends and the other begins.—G. E. Martindale. "Flammula var."—A. Bennett.

N. intermedia. Black Loch, Sanquhar, Dumfries, August, 1885.—Dr. A. Davidson. Stron Shalloch Loch, Dumfries, August, 1885.—J. Fingland. New record for Vice-County 72. *N. intermedia ?* (only two specimens sent, difficult to obtain) from a second locality in Dumfries-shire, was submitted to Mr. Bennett. He thinks it is possibly *N. lutea* v. *minor* of 3rd edition, "English Botany," but is not certain whether it is the *N. intermedium* of Ledebour. Mr. Bennett suggests the collecting of materials and submitting them to Dr. Caspay, the authority on the genus, so that our species and varieties may be properly arranged. Dr. Davidson's specimens seem to be the same as these of mine.—J. Fingland.

Barbarea stricta Andrz. Thurston, Bury St. Edmunds, June, 1883.—Rev. J. D. Gray. New record for Vice-County 26.

Lepidium ruderale L. Waste ground, Hull, 1884, comm. P. F. Lee. New record for Vice-County 61.

Drosera obovata. Scarp, Hebrides, July, 1885.—W. S. Duncan, comm. F. C. King. New record for Vice-County 110

Trifolium scabrum L. Sandy lane, Snaith, 1883.—P. F. Lee. New record for Vice-County 63.

Melilotus arvensis Wallr. Richmond, Surrey, July 24th, 1883. —Rev. W. R. Linton. Cromer, Norfolk, August, 1873.—Rev. W. R. Linton. Shoreham, Sussex, July 19th, 1880.—Rev. W. R. Linton. All new Vice-County records.

Geum intermedium Ehrh. Rye hill, Sanquhar, Dumfries, July, 1884.—Dr. A. Davidson. New record for Vice-County 72.

Rubus Chamæmorus L. Wanloch head, N.B., June, 1885.— Dr. A. Davidson. New record for Vice-County 72.

Rubus leucostachys Sm. Nayland, Suffolk, September, 1884.—Rev. J. D. Gray. "Yes."—C. C. Babington. New record for Vice-County 26.

R. ——— ? Polstead, Suffolk, September, 1884.—Rev. J. D. Gray. "*R. leucostachys.*" C. C. Babington.

R. ——— ? Fakenham Wood, Suffolk, September 26th, 1885.—W. H. Hind, comm. Rev. J. D. Gray. "I think *Lindleianus.*"—C. C. Babington. New record for Vice-County 26.

R. ——— ? Polstead, Suffolk, Sep., 1885.—Rev. J. D. Gray. "A ternate-leaved form of *Lindleianus.*"—C. C. Babington.

R. ——— ? Roadside, Lea, Lancs., Sep., 1885. A most beautiful species of which I am sorry to say there was only one stem. Please return it.—F. C. King. "I suspect that this is a monstrous form of *Lindleianus.* It is very interesting, and will, I hope, be found again."—C. C. Babington.

R. discolor W. and N. Redscar, Lancs., Aug., 1885.—F. C. King. "Yes."—C. C. Babington. Netherton, near Dewsbury, 1885.—P. F. Lee. Confirmed by C. C. Babington. Both new Vice-County records.

R. rhamnifolius W. and N. Netherton, near Dewsbury, 1885.—P. F. Lee. "*R. discolor.*"—C. C. Babington.

R. villicaulis W. and N. Heybeck, near Dewsbury, 1885.—P. F. Lee. "Seems to be *Salteri.*"—C. C. Babington.

R. Salteri Bab., var. *calvatus (fide* Babington). Sprowston, E. Norfolk, Sep. 9th, 1885.—Rev. E. F. Linton. New record for Vice-County 27.

R. ——— ? By the stream, Clatterbridge, Cheshire, July 24th, 1885.—A. E. Lomax. "This may be *incurvatus.*"—C. C. Babington.

R. Sprengelii W., var. *Borreri.* Heath near Oxton, Cheshire, Aug. 24, 1885.—A. E. Lomax. "Not quite typical."—C. C. Babington.

R. rudis Weihe. Nayland, Suffolk, Sep., 1884.—Rev. J. D. Gray. Polstead, Suffolk, Sep., 1885.—Rev. J. D. Gray. Both confirmed by C. C. Babington. New record for Vice-County 26.

R. rosaceus W. Polstead, Suffolk, Sep., 1885.—Rev. J. D. Gray. Confirmed by C. C. Babington. New record for Vice-County 26.

R. ——— ? Stoke by Nayland, Suffolk, Sep., 1884.—Rev. J. D. Gray. "*R. vestitus.*"—C. C. Babington.

R. Koehleri W. Coxley Valley, Dewsbury, 1885.—P. F. Lee. "*Koehleri pallidus.*"—C. C. Babington.

R. Koehleri W. Northallerton, Yorks., 1882.—J. A. Wheldon, comm. W. S. Harrison. "Very near our *discolor.*"—C. C. Babington.

R. Koehleri W., var. a. *vera.* In a plantation, Cloughton, Cheshire, Aug. 31, 1885.—A. E. Lomax. "Probably *foliosus* var."—C. C. Babington. Hedge near Kirkby, Lancs., Sep. 14, 1883.—A. E. Lomax. Confirmed by C. C. Babington. New record for Vice-County 59.

R. hemistemon Müll. Simmonswood, Kirkby, Lancs., Sep. 13, 1885.—A. E. Lomax.

Rubus "near *hirtifolius* Müll," C. C. Babington. Bidston Hill, Cheshire, Sep. 20, 1883.—A. E. Lomax.

R. mucronulatus Bor. Hedge, Bidston Hill, Cheshire, Aug. 30, 1885.—A. E. Lomax. "*R. hamulosus.*" -C. C. Babington.

R. glandulosus Bell. Sprowston, E. Norfolk, October 3, 1885.—Rev. E. F. Linton. "Not very satisfactory."—C. C. Babington.

R. Guntheri W. Oliver's Mount, Scarbro', 1882.—J. A. Wheldon, comm. W. S. Harrison. "*Guntheri*? or approaching a form of *glandulosus.*"—C. C. Babington.

R. humifusus W. Polstead, Suffolk, Sep., 1885.—Rev. J. D. Gray. "Yes."—C. C. Babington. New record for Vice-County 26.

R. ——— ? Great Hawkesby, Essex, September, 1885.—Rev. J. D. Gray. "Very near *humifusus.*"—C. C. Babington.

R. ——— ? Walney Island, Lancs., July, 1884.—F. C. King. "*R. rusticanus.*"—C. C. Babington.

R. ——— ? Wiston, Suffolk, Sep., 1884.—Rev. J. D. Gray. "*R. diversifolius.*"—C. C. Babington. New record for Vice-County 26.

R. ——— ? Sprowston, E. Norfolk, Sep. 12, 1883.—Rev. E. F. Linton. "Very near but not exactly *foliosus.*"—C. C. Babington.

Rosa mollis Sm. Blubberhouses, Yorks., Sep., 1885.—P. F. Lee. "Very near var. *pseudo-rubiginosa* Lyaume, if not quite that plant."—A. Bennett.

R. micrantha Sm. Leighton, Hunts., Sep. 3, 1884.—Rev. W. R. Linton. New record for Vice-County 31.

R. dumalis, forma *Malmundiensis* Deseg. Crowhurst, Surrey, Oct., 1884.—E. Straker.

R. urbica. Badewell Ash, Suffolk, Aug., 1885.—Rev. W. M. Hind, comm. Rev. J. D. Gray. "Nearer *arvatica*, but not good."—A. Bennett. Epping Forest, Essex, June 26, 1884.—Rev. W. R. Linton. "Near *tomentella.*"—A. Bennett.

R. stylosa Desv? Tanyard, Lingfield, Surrey, Sep. 20, 1884.—E. Straker. "*arvensis* f."—A. Bennett.

R. stylosa Desv. Graffham, Hunts., Sep. 2, 1885.—Rev. E. F. Linton. New record for Vice-County 31.

R. lucida Ehrh. Hedgerows, Meathop Moss, Westmoreland, July, 1885.—H. Goss. An American species. See *Naturalist*, April, 1886, p. 100.

R. Melvini mihi. Madresfield, Malvern, Worcestershire. No. 1. 1884 fruit, April 9, 1885. No. 2. Flowers, July 23, 1885. No. 3. Fruit and leaves, Nov. 10, 1885. This rose is peculiar in being more or less an evergreen trailing shrub: it is at no time of the year entirely destitute of leaves. Its very small fruit is also remarkable, as also the fact that it remains green until December or January, and does not assume the scarlet hue before the spring or summer of the year after it is produced. Specimens gathered at different dates and numbered 1, 2, and 3, show more or less these characters of foliage and fruit. This Rose has been variously stated, or suggested, to be a variety of *sempervirens*, of *stylosa*, and of *arvensis*, and also "a nurseryman's variety" of the first named plant, and "a stray."

Without presuming to give an opinion, I will just say that unlike this plant, *sempervirens* is said to have hairy styles; also that *R. Melvini* (as I have named it after my friend who pointed it out to me) is unlike specimens of *sempervirens* in the British Museum and at Kew; and I would also venture to suggest that if it is "a nurseryman's variety" the variety should at all events be known, which it does not appear to be.—R. F. Towndrow.

Epilobium parviflorum × *obscurum*. Alfrick, Worcestershire, Sep. 3, 1885.—R. F. Towndrow and A. R. Waller.

E. hirsutum × *montanum*. Hort. Malvern Link, July 16, 1885, from root gathered at Egg Buckland, S. Devon, Aug. 2, 1881, by Mr. T. R. A. Briggs.—R. F. Towndrow.

Callitriche platycarpa Kützt. Pond, Dewsbury, 1885.—P. F. Lee. "Not *C. platycarpa* Kütz. *C. vernalis?*"—A. Bennett.

Sedum villosum L. Near Sanquhar, Dumfries, Aug., 1885.—Dr. A. Davidson. Dulveen, Dumfries, July, 1885.—J. Fingland. New record for Vice-County 72.

Œnanthe fluviatilis Coleman. River Lark, W. Suffolk, Aug., 1885.—Miss Hillyer. A new record for Vice-County 26.

Arctium minus Schkuhr, Ellioch Mill, Sanquhar, Dumfries, Sep., 1885.—Dr. A. Davidson. New record for Vice-County 72.

Leontodon autumnalis L., var. *pratensis*. Euchan Head, Sanquhar, Dumfries, Sep., 1885.—Dr. A. Davidson. New record for Vice-County 72.

Hieracium tridentatum Fries. Braemar, Aberdeen, 1883.—Rev. W. R. Linton. New record for Vice-County 92.

Orobanche minor L. On clover, Stoke by Nayland, Suffolk, July, 1885.—Rev. J. D. Gray. New record for Vice-County 26.

Mentha arvensis L. Buckden, Hunts., Sep. 5, 1884.—Rev. W. R. Linton. New record for Vice-County 31.

Statice Limonium L. Land's End, Cornwall, Aug. 3, 1881.—Rev. W. R. Linton. Queried for Cornwall in Top. Bot.

Polygonum amphibium L., var. *terrestre*. Near Sanquhar, Dumfries, Aug., 1885.—Dr. A. Davidson. New record for Vice-County 72.

Populus tremula L. Sanquhar, Dumfries, 1885.—Dr. A. Davidson. New record for Vice-County 72.

Salix viminalis L. Near Sanquhar, Dumfries, May and June, 1885.—Dr. A. Davidson. "Capsule very doubtful but I suppose right."—A. Bennett.

S. Lapponum L. Canlochan, Forfar, Aug. 3, 1883, and near Glenshee, Perth, Aug. 7, 1883.—Rev. W. R. Linton. "*Stuartiana*."—A. Bennett.

S. nigricans Sm., var. *Damascena*. Euchan Head, Sanquhar, July, 1885.—Dr. A. Davidson. "Doubtful: leaves not oval enough, catkins too long, certainly *nigricans*! but perhaps not *Damascena*."—A. Bennett.

S. nigricans Sm., var. *petræa*? Killin, Perth, Aug. 17, 1883. Alt. 1600 ft.—Rev. E. F. Linton. "*nigricans*! not *petræa*, not nearly silky enough."—A. Bennett.

S. repens L., var. *prostrata*. West Benfleet, Essex, May and Aug., 1885.—Rev. J. D. Gray. "Does the flowering spike really belong? leaves probably correct."—A. Bennett.

Sparganium minimum Fries. Gordon Moss, Berwick, July, 1885.—P. F. Lee. New record for Vice-County 81.

S. neglectum Beeby. Merstham, Surrey, Sep. 26, 1885.—E. Straker. Malvern Link, Worcestershire, Sep. 23, 1885.—R. F. Towndrow. Confirmed by Mr. Beeby.

Sparganium? intermediate form. Malvern Link, Worcestershire, Sep. 23, 1885.—R. F. Towndrow. "*ramosum* Curt. with imperfect fruit."—W. H. Beeby.

Potamogeton rufescens Schrad. River near Bangor, Carnarvon, June, 1885.—J. E. Griffith, comm. A. Bennett. New record for Vice-County 49.

P. perfoliatus L. Barton Mills, Suffolk, July, 1885.—Miss Hillyer. New record for Vice-County 26.

P. Griffithii A. Bennett. Llyn an Afon, Carnarvon, N. Wales, July, 1885. Alt. 1250 ft.—J. E. Griffith, comm. A. Bennett. (See Journal of Bot., March, 1883).

P. pusillus L. Sanquhar, Dumfries, Sept., 1885.—Dr. A. Davidson. "Probably var. *panormitanus* Biv."—A. Bennett.

P. pectinatus L. Ditches, Nayland, Suffolk, July, 1884.—Rev. J. D. Gray. New record for Vice-County 26.

Naias marina L. Heigham Sounds, Norfolk E., Aug., 1885.—H. Tuke Mennell.

Luzula Forsteri DC. Polstead, Suffolk, May, 1883.—Rev. J. D. Gray. New record for Vice-County 26.

Carex disticha Huds. Banks of Nith, Thornhill, Dumfries, July, 1885.—Dr. A. Davidson, and also J. Fingland. New record for Vice-County 72.

C. Grypos Schk? Loch near Enn, Perth, Aug. 16, 1884.—Rev. W. R. Linton. "*stellulata*."—A. Bennett.

C. vulpina L. Ruthwell, Dumfries, July, 1885.—J. Fingland. New record for Vice-County 72.

C. limosa L. Strumshalloch Loch, Dumfries, Aug, 1885.—J. Fingland. New record for Vice-County 72. Bog Fell, between Kentmere and Long Sleddale, Westmoreland, July 2, 1885.—G. E. Martindale. New record for Vice-County 69.

C. pallescens L. Woods near Sanquhar, Dumfries, July, 1885.—Dr. A. Davidson. New record for Vice-County 72.

Carex salina Wahl., Vet. A. Hand., 1803., b. *kattegatensis* Almquist in Hartman's Handbok i Skandinaviens Flora, ed. 11. *C. kattegatensis* Fries. Banks of the Wick River in Caithness, Scotland, growing with *Carex aquatilis* v. *Watsoni*, *Scirpus uniglumis*, &c., July and August, 1885, coll. Mr. James Grant. The type is a native of most Arctic shores, descending here and there along the coast, as in the United States to Maine and Massachussets, the isotherm of 50° showing fairly well its southern limits. *C. kattegatensis* Fries is confined to the provinces of Bohusulin and Halland, in Sweden, on present knowledge. The species is one of the most difficult in the European Flora to limit as to sub-species and varieties, its forms being difficult to distinguish and to correlate with American and other Arctic forms. Even in Caithness a form of *aquatilis* occurs with it, var. *cuspidata* Læst, that is by no means easy to distinguish without care.—Arthur Bennett.

C. fulva auct., var. *sterilis* Syme. Thornhill, Dumfries, July, 1885. Mr. Bennett says this is either very near, or the same as *C. xanthocarpa* Dgland.—J. Fingland.

C. Oederi Ehrh. Killin, Perth, Aug. 17, 1883.—Rev. W. R. Linton. "*C. flava* L., var. *minor* Townsd."—A. Bennett. Epping Forest, Essex, June 5, 1883.—Rev. W. R. Linton. New record for Vice-County 18.

C. hirta L. Banks of Nith, Sanquhar, Dumfries, July, 1885.—Dr. A. Davidson. New record for Vice-County 72.

C. paludosa Good. Caerlaverock, Dumfries, Aug., 1885.—J. Fingland. New record for Vice-County 72.

C. vesicaria L. Keir, Dumfries, July, 1885.—J. Fingland. New record for Vice-County 72.

Calamagrostis strigosa Hartm. *Arundo strigosa* Wahl. Fl. Lapponica, n. 47, t. 2. On the marshy ground formerly Loch Duran, near Castleton, Caithness, Scotland, coll. Mr. J. Grant, July, 1885. This most interesting addition to the British Flora is a native of Finmark, Lapland, Nova Zemblia, Kamtschatka, Sitcha (Alaska), North Norway, (and if two other plants are included, as by Hooker, "Arctic Plants," *Linnean Transactions*), America; but its being reported as a Greenland plant seems an error (*cf.* Lange, Fl. Greenland). The Caithness plant is very near the Norwegian specimens, the Finmarkian specimens "Varangerfiord" being slightly different. This is the plant mentioned by Robert Dick (Smiles's "Life of Robert Dick") as the Lapland Rush "*C. lapponica*," but the there supposed "*lapponica*" from Ireland, afterwards proved to be a var. of *stricta*. There is no reason why the true *lapponica* of Wahlenberg may not some time be found in the extreme north of Scotland, as well as some other forms of the genus, which is well represented in the Scandinavian Flora.—Arthur Bennett.

Poa Balfourii Bab. Quiraing, Skye, Aug. 8, 1884.—Rev. W. R. Linton. New record for Vice-County 104.

P. sub-cœrulea, Syme. Saltmarsh, near Southport, Lancs., June, 1883.—F. C. King.

P. nemoralis L. Banks of Nith, Sanquhar, Dumfries, July, 1884.—Dr. A. Davidson. New record for Vice-County 72.

Festuca Pseudo-Myurus Soyer. Sanquhar, Dumfries, Aug., 1885.—Dr. A. Davidson. New record for Vice-County 72.

Triticum junceum L Dunwich, Suffolk, July, 1884.—Rev. J. D. Gray. New record for Vice-County 25. Coatham, Yorks. N.E., 1884. H. Ibbotson, comm. A. R. Waller. New record for Vice-County 62.

Nephrodium Borreri. Strome Ferry, Ross, July 29, 1884.—Revs. W. R. and E. F. Linton. New record for Vice-County 105.

Equisetum pratense Ehrh. Holm Woods, Sanquhar, Dumfries, June and July, 1885.—Dr. A. Davidson. New record for Vice-County 72.

LIST OF MEMBERS.

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J. Cunnack, Helston, Cornwall.
Dr. Anstruther Davidson, Sanquhar, Dumfries-shire, N.B.
P. Ewing, Stanley Place, Uddingston, Glasgow.
Jas. Fingland, Thornhill, Dumfries-shire, N.B.
H. Purefoy Fitz-Gerald, M.C.S., North Hall, Basingstoke, Hants.
Herbert Goss, F.L.S., Berrylands, Surbiton Hill, Surrey.
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William Robinson, West Bank, Westbourne Road, Scarbro'.
H. Searle, Ashton-under-Lyne.
Philip Sewell, Royal Botanical Gardens, Edinbro'.
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E. Straker, Hazelshaw, Kenley, Surrey.
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Miss Todd, 3, Portland St., Gillygate, York.
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Alfred R. Waller, Low Ousegate, York.
J. T. Walsh, 82, Park Field Ter., Frizinghall, Shipley, Yorks.
F. B. Webb, Church Terrace, Cheadle, Staffordshire.
Alfred Wheeler, Ashentree Lane, Dover.

LIST OF DESIDERATA, 1886.

- Thalictrum flexuosum
  - majus, *vars.*
  - saxatile
  - flavum, *vars.*
- Anemone Pulsatilla
  - apennina
- Adonis autumnalis
- Ranunculus Bachii
  - peltatus, *vars.*
  - diversifolius and *vars.*
  - trichophyllus
  - Baudotii and *vars.*
  - intermedius
  - ophioglossifolius
  - reptans
  - tomophyllus
  - parvulus
  - chærophyllus
- Caltha Guerangerii
  - radicans
- Delphinium Ajacis
- Aconitum Napellus
- Actæa spicata
- Nuphar intermedia
  - pumila
- Papaver somniferum & *vars.*
  - strigosum
  - Lecoqii
  - hybridum
- Meconopsis cambrica
- Chelidonium laciniatum
- Corydalis lutea
- Fumaria, any *except* officinalis
- Raphanus maritimus
- Sinapis alba
  - incana
- Brassica oleracea
  - Rutabaga
  - Rapa and *vars.*
  - Cheiranthus
- Diplotaxis muralis
- Sisymbrium Irio
- Hesperis matronalis
- Matthiola sinuata
  - incana
- Dentaria bulbifera
- Cardamine impatiens
- Arabis petræa
  - stricta
  - ciliata
  - hispida
  - Turrita
- Barbarea arcuata
  - intermedia
  - præcox
- Nasturtium siifolium
  - sylvestre
  - amphibium
- Armoracia rusticana
- Cochlearia littoralis
- Draba inflata
  - muralis
  - incana
  - aizoides
- Alyssum calycinum
  - maritimum
- Camelina sativa and *vars.*
- Subularia aquatica
- Thlaspi perfoliatum
  - alpestre, *vars.*
- Iberis amara
- Lepidium sativum
- Isatis tinctoria
- Helianthemum, any *except* vulgare
- Viola permixta
  - sepincola
  - Reichenbachiana
  - arenaria
  - flavicornis
  - lactea
  - intermedia
  - stagnina
  - Curtisii, and *vars.*
- Polygala, any *except* vulgaris
- Dianthus, any *except* deltoides
- Silene quinquevulnera
  - Otites
  - nutans
  - italica
- Lychnis alpina
- Holosteum umbellatum
- Cerastium pumilum
  - triviale, *vars.*
  - latifolium and *vars.*
  - Andrewsii
  - trigynum
- Stellaria Boræana
  - umbrosa
- Arenaria leptoclados
  - norvegica
  - ciliata
- Alsine, any *except* verna
- Sagina alpina
  - ciliata
  - saxatilis
  - nivalis
- Spergularia neglecta, *vars.*
  - marginata
  - rupestris
- Polycarpon tetraphyllum
- Corrigiola littoralis
- Herniaria glabra
  - ciliata
  - subciliata
- Illecebrum verticillatum
- Montia rivularis
- Claytonia alsinoides
  - perfoliata
- Elatine hexandra
  - Hydropiper
- Hypericum angustifolium
  - maculatum
  - bæticum
  - linariifolium
- Althæa officinalis
- Lavatera arborea
- Tilia intermedia
- Geranium sanguineum, *vars.*
  - modestum
- Erodium chærophyllum
  - moschatum
- Oxalis corniculata
  - stricta
- Impatiens fulva
- Ulex Gallii
  - nanus
- Genista pilosa
  - humifusa
- Sarothamnus prostratus
- Ononis repens
  - reclinata
- Anthyllis Dillenii
- Medicago sylvestris
  - denticulata
  - apiculata
  - minima
- Trifolium pratense, *vars.*
  - incarnatum
  - Molinerii
  - Bocconi
  - glomeratum
  - strictum
- Lotus angustissimus
  - hispidus
- Oxytropis Halleri
  - campestris
- Astragalus alpinus
  - hypoglottis
- Ornithopus ebracteatus
- Vicia gracilis
  - lutea
  - angustifolia, *vars.*
  - bithynica, and *var.*
- Lathyrus Aphaca
  - hirsutus

Lathyrus palustris
  maritimus
Orobus niger
Prunus domestica
Agrimonia odorata
Alchemilla montana
  conjuncta
Potentilla verna
  procumbens
  rupestris
  argentea
  fruticosa
Rubus, any of the fruticose section
Dryas depressa
Rosa rubella
  involuta and *vars.*
  hibernica
  cordifolia
  pomifera
  mollissima, *vars.*
  tomentosa, *vars.*
  rubiginosa, *vars.*
  micrantha, *vars.*
  sepium and *vars.*
  canina, any *vars. except*
    lutetiana
    dumalis
    urbica
    dumetorum
    tomentella
    verticillacantha
  stylosa, *vars.*
  arvensis, *vars.*
Cotoneaster vulgaris
Mespilus germanica
Cratægus Oxyacantha, *vars.*
Pyrus torminalis
  rupicola
  latifolia
  scandica
  pinnatifida and *vars.*
  communis, *vars.*
  acerba
Lythrum Hyssopifolia
Epilobium brachycarpum
  lanceolatum
  roseum
  anagallidifolium
  alpinum
Œnothera biennis
  odorata
Isnardia palustris
Circæa intermedia
  alpina and *var.*
Myriophyllum, *any species*
Callitriche, any *except* verna and hamulata
Ribes Uva-crispa
Ribes rubrum, *vars.*
Tillæa muscosa
Sedum Rhodiola
  Telephium, *vars.*
  album and *vars.*
  dasyphyllum
  sexangulare
  reflexum
  albescens
  minus
  Fosterianum and *vars.*
Sempervivum tectorum
Saxifraga nivalis
  Geum and *vars.*
  hirsuta
  umbrosa and *vars.*
  Hirculus
  cæspitosa
  Sternbergii
  decipiens
  sponhemica
Astrantia major
Eryngium campestre
Helosciadium repens
Petroselinum sativum
  segetum
Trinia vulgaris
Carum, *any species*
Œnanthe silaifolia
  fluviatilis
Fœniculum vulgare
Seseli Libanotis
Peucedanum officinale
Tordylium maximum
Daucus gummifer
Caucalis daucoides
Torilis infesta
Chærophyllum sativum
Physospermum cornubiense
Coriandrum sativum
Viburnum Lantana
Lonicera Caprifolium
  Xylosteum
Galium ochroleucum
  erectum
  elatum
  Bakeri
  nitidulum
  elongatum
  anglicum
  Vaillantii
  tricorne
Valeriana sambucifolia
Valerianella carinata
  Auricula
  mixta
Silybum Marianum
Carduus crispus, *vars.*
  eriophorus
Carduus tuberosus
  setosus
  Hybridi
Arctium, *any species*
Saussurea alpina
Serratula monticola
Centaurea decipiens
  aspera
  Calcitrapa
  solstitialis
Matricaria inodora, *vars.*
Anthemis anglica
  nobilis
Diotis maritima
Artemisia campestris
  gallica
Filago apiculata
  spathulata
  gallica
Gnaphalium pilulare
  luteo-album
  norvegicum
  margaritaceum
  hyperboreum
Senecio squalidus
  paludosus
  palustris
  campestris
  maritima
Doronicum plantagineum
Bidens radiata
Galinsoga parviflora
Inula salicina
  crithmoides
Erigeron canadensis
Solidago Virga-aurea, *vars.*
Cichorium Intybus
Arnoseris pusilla
Hypochœris Balbisii
  maculata
Leontodon hirtus
Picris arvalis
Tragopogon grandiflorus
Taraxacum erythrospermum
  palustre
Lactuca virosa
  Scariola
  saligna
Mulgedium alpinum
Sonchus glabra
  palustris
Crepis fœtida
  setosa
  succisifolia
Hieracium, any *except*
    Pilosella aurantiacum
    vulgatum
    umbellatum
    boreale

- Lobelia Dortmanna
  - urens
- Campanula rapunculoides
  - persicifolia
  - Rapunculus
  - patula
- Specularia hybrida
- Vaccinium uglinosum
- Arctostaphylos alpina
- Arbutus Unedo
- Menziesia polifolia
  - cærulea
- Erica ciliaris
  - tetralici-ciliaris
  - Mackaiana
  - vagans
  - hibernica
- Pyrola secunda
  - uniflora
- Monotropa hirsuta
- Erythræa latifolia
  - littoralis
  - pulchella
- Cicendia pusilla
  - filiformis
- Gentiana nivalis
  - germanica
- Limnanthemum nymphæoides
- Cuscuta Epilinum
- Solanum marinum
  - miniatum
- Verbascum pulverulentum
  - Lychnitis
  - virgatum
  - Blattaria
  - Hybrida
- Scrophularia Ehrharti
  - Scorodonia
  - vernalis
- Antirrhinum majus
- Linaria Pelisseriana
  - repens
  - hybridæ
- Mimulus luteus
- Limosella aquatica
- Sibthorpia europæa
- Veronica triphylla
  - spicata
  - hybrida
  - hirsuta
- Euphrasia varietates
- Bartsia Odontites, *vars.*
  - viscosa
  - alpina
- Rhinanthus major
- Melampyrum cristatum
  - arvense
  - ericetorum
- Orobanche, any *except* major and minor
- Mentha alopecuroides
  - sylvestris, *vars.*
  - viridis
  - Piperita, *vars.*
  - pubescens, and *vars.*
  - citrata
  - sativa, *vars.*
  - rubra
  - gracilis
  - cardiaca
  - pratensis
  - gentilis, and *vars.*
  - arvensis, *vars.*
  - erecta
- Thymus Chamædrys
- Calamintha Nepeta
  - Briggsii
  - sylvatica
- Melissa officinalis
- Salvia clandestina
  - pratensis
- Melittis Melissophyllum
- Marrubium vulgare
- Ballota nigra, and *vars.*
- Stachys germanica
  - ambigua
- Galeopsis intermedium
  - ochroleuca
  - bifida
- Leonurus Cardiaca
- Lamium intermedium
  - decipiens
- Ajuga pyramidalis
- Teucrium, any *except* Scorodonia
- Echium plantagineum
- Pulmonaria angustifolia
  - officinalis
- Mertensia maritima
- Lithospermum purpureo-cæruleum
- Myosotis strigulosa
  - Mittenii
- Anchusa officinalis
- Borago officinalis
- Cynoglossum montanum
- Asperugo procumbens
- Pinguicula grandiflora
  - alpina
- Utricularia neglecta
  - intermedia
- Primula vulgaris, *vars.*
  - acaulis
- Cyclamen hederifolium
- Lysimachia thyrsiflora
  - punctata
- Anagallis cærulea
- Centunculus minimus
- Armeria duriuscula
- Statice pyramidalis
  - bahusiensis
  - binervosa, and *vars.*
  - caspia
- Plantago hirsuta
- Suæda fruticosa
- Salicornia procumbens
  - radicans
- Chenopodium cymosum
  - olidum
  - paganum
  - ficifolium
  - murale
  - hybridum
  - urbicum
  - intermedium
  - pseudo-botryoides
  - botryoides
  - glaucum
- Atriplex marina
  - erecta, and *vars.*
  - prostrata
  - Smithii
  - triangularis
  - pedunculata
- Rumex sanguineus
  - maritimus
  - palustris
  - obtusifolius, *vars.*
  - pratensis
  - conspersus
  - elongatus
  - aquaticus
  - maximus
  - alpinus
- Polygonum dumetorum
  - aviculare, *vars.*
  - Raii
  - maritimum
  - minus
  - elatum
  - maculatum
  - viviparum
- Daphne Mezereum
- Thesium humifusum
- Asarum europæum
- Aristolochia Clematitis
- Euphorbia Peplis
  - stricta
  - hibernia
  - Esula
  - Pseudo-cyparissias
  - Cyparissias
  - Lathyris
- Mercurialis ambigua
- Ceratophyllum submersum
- Parietaria fallax

Urtica pilulifera
Dodartii
Ulmus suberosa
glabra
montana, *vars.*
Quercus intermedia
Betula alba, *vars.*
nana
Populus, *any species*
Salix decipens
viridis
Russelliana
alba, *vars.*
undulata
triandra, and *vars.*
purpurea, and *vars.*
Doniana
rubra, *vars.*
intricata
stipularis
pseudo-stipularis
ferruginea
rugosa
acuminata
cinerea, *vars.*
minor
sphacelata
laurina
phylicifolia, *vars.*
nigricans, *vars.*
ambigua, and *vars.*
repens, and *vars.*
rosmarinifolia
angustifolia
Lapponum, *vars.*
Arbuscula, and *vars.*
Myrsinites, and *vars.*
Grahami, and *vars.*
Pinus Pinaster
Juniperus nana
Typha media
Sparganium affine
minimum
Arum italicum
Lemna polyrhiza
Wolffia arhiza
Potamogeton polygonifolius, *vars.*
plantagineus
sparganiifolius
Lonchitis
lanceolatus
heterophyllus
nitens
lucens, *vars.*
longifolius
prælongus
zosterifolius
acutifolius
Potamogeton mucronatus
trichoides
pectinatus, *vars.*
filiformis
Zannichellia, *any species*
Ruppia, *any species*
Zostera, *any species*
Najas flexilis
Scheuchzeria palustris
Alisma lanceolatum
natans
Actinocarpus Damasonium
Butomus umbellatus
Hydrocharis Morsus-ranæ
Stratiotes aloides
Orchis hircina
ustulata
militaris
Simia
incarnata
Gymnadenia albida
Neotinea intacta
Herminium Monorchis
Ophrys aranifera, and *vars.*
Spiranthes æstivalis
gemmipara
Goodyera repens
Epipactis ovalis
violacea
Cephalanthera rubra
ensifolia
Epipogum aphyllum
Corallorhiza innata
Liparis Loeselii
Malaxis paludosa
Cypripedium Calceolus
Sisyrinchium Bermudiana
Trichonema Columnæ
Gladiolus illyricus
Iris citrina
Pseudacorus, *vars.*
tuberosa
Crocus vernus
nudiflorus
Narcissus major
biflorus
Leucojum æstivum
vernum
Smilacina bifolia
Polygonatum, *any species*
Convallaria majalis
Asparagus officinalis, & *vars.*
Lilium Martagon
Tulipa sylvestris
Lloydia serotina
Gagea lutea
Ornithogalum, *any species*
Scilla autumnalis
verna
Muscari racemosum
Allium, any *except* vineale and ursinum
Simethis bicolor
Eriocaulon septangulare
Luzula sudetica
Juncus castaneus
biglumis
acutus
balticus
filiformis
macrocephalus
nigritellus
Kœpii
capitatus
pygmæus
Cyperus fuscus
longus
Cladium Mariscus
Rhyncospora fusca
sordida
Scirpus uniglumis
parvulus
Savii
monostachys
Holoschœnus
Tabernæmontani
carinatus
triqueter
Eriophorum alpinum
gracile
Carex rupestris
pauciflora
incurva
teretiuscula
Ehrhartiana
Boenninghauseniana
elongata
lagopina
alpicola
bracteata
alpina
Buxbaumii
aquatilis
Watsoni
vulgaris, *vars.*
glauca, *vars.*
irrigua
digitata
humilis
montana
ericetorum
tomentosa
vaginata
ustulata
depauperata
punctata
speirostachya
extensa

- Carex minor
  - lepidocarpa
  - filiformis
  - ebracteata
  - Kochiana
  - involuta
  - Grahami
- Leersia oryzoides
- Spartina stricta
  - alterniflora
- Chamagrostis minima
- Cynodon Dactylon
- Digitaria humifusa
- Echinochloa Crus-galli
- Setaria viridis
- Hierochloa borealis
- Alopecurus bulbosus
  - pronus
  - alpinus
  - Watsoni
- Phleum Boehmeri
- Gastridum lendigerum
- Lagurus ovatus
- Polypogon littoralis
- Agrostis Spica-venti
  - interrupta
  - setacea
  - stolonifera
- Psamma baltica
- Calamagrostis, *any species*
- Aira cæspitosa, *vars.*
  - alpina
  - uliginosa
  - montana
- Avena alpina
  - strigosa
- Avena fatua, and *vars.*
  - nodosum
- Koeleria cristata, *vars.*
- Glyceria pedicillata
- Sclerochloa distans
  - Borreri
- Poa stricta
  - laxa
  - glauca
  - Parnellii
- Briza minor
- Cynosurus echinatus
- Festuca ovina, *vars.*
  - sylvatica
- Bromus Benekenii
  - erectus
  - rigidus
  - maximus
  - secalinus
  - velutinus
  - racemosus
  - pubescens
  - mollis, *vars.*
  - arvensis
- Brachypodium glabrescens
  - pubescens
- Triticum biflorum
  - pungens
  - acutum
- Lolium italicum
  - arvense
- Hordeum sylvaticum
- Trichomanes radicans
  - Andrewsii
- Adiantum Capillus-Veneris
- Asplenium germanicum
- Asplenium septentrionale
  - anceps
  - lanceolatum
  - acutum
- Woodsia hyperborea
  - ilvensis
- Cystropteris fragilis
  - alpina
  - montana
- Aspidium lobatum
- Nephrodium affine
  - abbreviatum
  - rigidum
  - cristatum
  - uliginosum
  - dilatatum
  - æmulum
- Polypodium Robertianum
  - flexile
- Gymnogrmme leptophylla
- Ophioglossum ambiguum
  - lusitanicum
- Isoetes echinospora
  - Hystrix
- Equiseteum alpestre
  - subnudum
  - fluviatile
  - hyemale
  - paleaceum
  - variegatum
- Chara, any *except*
  - translucens
  - fœtida
  - hispida
  - fragilis.

Any species or varieties not included in the Seventh Edition of the London Catalogue, and any of the excluded species, will be welcome.

THE

THIRD ANNUAL REPORT

OF THE

WATSON

Botanical Exchange Club,

1886-1887.

Referee :—
ARTHUR BENNETT, F.L.S., High Street, Croydon.

Hon. Treasurer :—
P. F. LEE, Phan. Sec. Bot. Sect., Yorks. Naturalists' Union,
West Park Villas, Dewsbury.

Hon. Secretary :—
A. R. WALLER, Low Ousegate, York.

"Labor Omnia Vincit."

YORK:
William Sessions, Printer, 15 & 16, Low Ousegate.
1887.

REPORT FOR 1886—87.

The number of plants received during the recent exchange is in excess of those received last year. As will be seen from the list given below, 4,971 specimens have been received from 35 contributors.

I am much indebted, and indeed so are all the members of the Club, to Mr. Arthur Bennett, F.L.S., for his continued help and generous assistance as Referee. To Prof. Babington our best thanks are due for looking over the Rubi.

Members will please note the altered 6th section of Rule 3. It will save the Distributor hours of labour if this arrangement is adhered to.

LIST OF PARCELS RECEIVED.

Mr. A. Bennett, F.L.S.	149
Mr. W. A. Clarke	15
Dr. A. Davidson	115
Miss Margaret Dawber	512
Mr. P. Ewing	118
Mr. D. Farquhar	46
Mr. J. Fingland	90
Mr. H. P. Fitz-Gerald, M.C.S.	29
Rev. H. E. Fox, M.A., F.L.S.	308
Rev. J. D. Gray	140
Mr. J. E. Griffith, F.L.S.	251
Mr. G. K. Gude	26
Mr. W. S. Harrison, M.A.	210
Miss D. M. Higgins	17
Miss M. Hillyer	80
Mr. F. C. King	79
Mr. P. F. Lee	248
Rev. E. F. Linton, M.A.	242
Mr. A. E. Lomax	280
Mrs. Eliz. A. Lomax	78
Dr. P. Maclagan	51
Mr. G. E. Martindale	133
Mr. H. T. Mennell, F.L.S.	102
Rev. W. Hunt Painter	132
Mr. R. Paulson	106
Mr. J. Percival	11
Mr. J. T. Powell	200
Mr. R. Lloyd Praeger, B.E., B.A.	209
Mr. W. Robinson	39
Mr. S. A. Stewart	57
Mr. R. F. Towndrow	60
Mr. J. Vaughan	43
Mr. A. R. Waller	200
Mr. F. H. Ward	580
Mr. C. Waterfall	15
	4,971

P. FOX LEE, Distributor for 1886-87.

Thalictrum flavum L., var. —— ? Nayland, Suffolk, October, 1886.—J. D. Gray. "a. *sphœrocarpum* Lej."—A. Bennett.

T. ———— ? Island in Windermere, Westmoreland. Fl. July 14th, 1885; Fr. August, 1886. Is this *Kochii*?—G. E. Martindale. "No."—A. Bennett.

Ranunculus trichophyllus Chaix. Stream, Barton Mills, Suffolk, July, 1886.—M. Hillyer. "*Drouetti*?"—A. Bennett.

R. ———— ? Pond, Spy Crag, Staveley, Westmoreland, June 15th, 1886.—G. E. Martindale. "*heterophyllus* Fr."—A. Bennett.

R. ———— ? In fossa, Hightown, Lancashire, 4 Junii, 1886.—A. E. Lomax. "*Godronii*?"—A. Bennett.

R. Drouetti F. Sz.? In stagno, Wallasey, Cheshire, 25 Maii, 1886. "Certainly not *Drouetii*. Would develope fl. leaves later on; a form of *Baudotii* as an aggregate."—A. Bennett.

R. Baudotii Godr. River Colne, nr. W. Drayton, Middlesex, June 25th, 1886.—G. K. Gude. "*penicillatus* Hiern, *pseudofluitans* Syme."—A. Bennett.

R. marinus Fries. Pond near Acton, Middlesex, May 9th, 1886.—G. K. Gude. "*Drouetti* Schultz."—A. Bennett.

R. trichophyllus Chaix. Growing on dry mud, Nayland, Suffolk, May, 1882.—J. D. Gray. "*cæspitosus* Hiern."—A. Bennett.

R. penicillatus Hiern. Mill stream, Nayland, May, 1882.—J. D. Gray. "*Drouetti*?"—A. Bennett.

Fumaria confusa Jord. Musselburgh, Midlothian, Sep., 1886.—H. E. Fox. "Seems correct."—A. Bennett.

F. ——— ? Eversley, Hants., July 22nd, 1886.—J. Vaughan. "*Borœi* Jord."—A. Bennett.

Brassica ——— ? Uddingston, Lanark, July, 1886.—P. Ewing. "I think *Rapa*, but not sure."—A. Bennett.

Viola ——— ? Irvine, Ayrshire, July, 1886.—P. Ewing. "*Curtisii*."—A. Bennett.

Arenaria leptoclados Guss. Northallerton, Yorks., May, 1883.—Leg. J. A. Wheldon, comm. W. S. Harrison. "*trinervia* L."—A. Bennett.

Hypericum elatum Ait. Sebergham, Cumberland, Sept., 1886. Found in a cottage garden just within a low fence facing the road at Sebergham, Cumberland. The occupant stated that the plant used to grow in some plenty higher up the road, that some "gentlemen" from Keswick came with a cart and carried it all away, that she afterwards went up the road and found two pieces of root which she planted in her garden, and which are now two fine shrubs.—Eliz. A. Lomax. "This species is not a native anywhere."—A. Bennett.

Ononis reclinata L.? Edge of grassy plain above the sea, Torquay, July, 1883.—Eliz. A. Lomax. "probably correct; no fruit."—A. Bennett.

Rosa Wilsoni Borr. Banks, Menai Straits, nr. Bangor.—J. E. Griffith. "Correct."—A. Bennett.

R. coriifolia Fr. Burbage, Buxton, Aug., 1884.—W. H. Painter. "I believe correct."—A. Bennett.

R. biserrata Merat. Knypersley, Biddulph, Staff., Sept., 1886.—W. H. Painter. "Seems correct."—A. Bennett.

R. canina L., var. *arvatica* Baker. Buckden, Hunts., Aug., 1883.—Leg. W. R. Linton, comm. J. D. Gray. "var. *tomentella* Leman."—A. Bennett.

R. cærulea Woods. Durham, Aug., 1885.—H. E. Fox. "Seems correct."—A. Bennett.

R. alpina, var. *pyrenaica*. Naturalised in Woods at Croxdale, Durham, July, 1886.—H. E. Fox. "Correct. Named by Mr. G. Nicholson, of Kew."—A. Bennett.

R. marginata Wallroth. In sepibus et silvis, Durham, Aug., 1884.—H. E. Fox. "I believe correct (auct. Angl.); of Wallroth ?—A. Bennett.

Rubus ——— ? In silva, prope Eastham, Cheshire, 22 Septembris, 1886.—A. E. Lomax. "*rosaceus*, I suppose. The growing stem is far too young to give a good idea of the plant."—C. C. Babington.

R. nitidus W. and N., var. *hamulosus* P. G. Müll. In silva, Bidston, Cheshire, 14 Septembris, 1886.—A. E. Lomax. "Yes."—C. C. Babington.

R. ——— ? In silva, prope Eastham, Cheshire, 22 Septembris, 1886.—A. E. Lomax. "*rosaceus*, probably."—C. C. Babington.

R. affinis Weihe ? In silva, Bidston, Cheshire, 14 Septembris, 1886.—A. E. Lomax. "I think not *affinis*. Can it also be *hamulosus* ?—C. C. Babington.

R. rosaceus W. and N. In silva, prope Eastham, Cheshire, 22 Septembris, 1886.—A. E. Lomax. "*rosaceus* never has such a stem. It is very like *Lejeunei*."—C. C. Babington.

R. ——— ? Hedge, Lea, Lancs., Sep., 1886.—F. C. King. "A nearly glabrous form of *villicaulis*."—C. C. Babington.

R. ——— ? Lane, Lea, Lancs., Sep., 1886.—F. C. King. "Very like some forms of the true *thyrsoideus* from Sweden. I am not quite satisfied with it."—C. C. Babington.

R. ——— ? Lea, Lancs., Sep., 1886.—F. C. King. "I can make nothing of this but *derasus*, but it is very far more glabrous than any specimen of that which I have seen or is described. Very interesting."—C. C. Babington.

R. ——— ? Obbe, S. Harris, Hebrides, August, 1886.—F. C. King. "*R. carpinifolius*. Very interesting."—C. C. Babington.

R. humifusus W. Polstead, Essex, Sep., 1884.—J. D. Gray. "This seems to be *pendulinus* (only known from one place before)."—C. C, Babington.

R. humifusus W. Great Hatherley, Essex, Sep , 1884.—J. D. Gray. "Poor. This seems nearer *flexuosus* (i.e. *Guntheri*) than olus! *saxa~~tilis~~* (i.e. *humifusus*)."—C. C. Babington.

R. Lindleianus Lees ? Polstead, Suffolk, Sep., 1884.—J. D. Gray. "*macrophyllus*, var. *glabratus*."—C. C. Babington

R. rosaceus, var. *Hystrix* Weihe. Near Llanberis, Carnarvonshire, Aug., 1886.—J. E. Griffith. "*Lejeunei* Weihe"—C. C. Babington.

R. macrophyllus Weihe, var. —— ? Beeston (by Norwich), Norfolk, E., Sep. 11th, 1886.—E. F. Linton. Prof. Babington passes this by with no remark.

R. glandulosus Bell. Sprowston, Norfolk, E., Oct., 1885.—E. F. Linton. "Not very satisfactory" (last year), *fide* Babington. "I now think it *pendulinus*."—C. C. Babington.

R. villicaulis Koehl. Hedge, Heybeck, near Dewsbury, Sep., 1885. This was sent to Prof. Babington last year with the Watson Club's Rubi, who then said he thought it to be *R. Salteri*, and desired some in bloom —P. F. Lee. "I adhere to my former determination. If I must decide between *Salteri* and *calvatus* I should say the latter. But it seems to lie between the two."—C. C. Babington.

R. ———— ? In silva, prope Eastham, Cheshire, 22 Septembris, 1886.—A. E. Lomax. "*macrophyllus*, var. *glabratus* Bab."—C. C. Babington.

R. ———— ? In silva, prope Claughton, Cheshire, 20 Septembris, 1886.—A. E. Lomax. Prof. Babington passes this by without comment.

R. rosaceus W. and N. In silva, prope Eastham, Cheshire, 22 Septembris, 1886.—A. E. Lomax. "*Lejeunei*."—C. C. Babington.

R. ———— ? Soothill Wood, near Dewsbury, Sept., 1886. —P. F. Lee. "Very near to *festivus*."—C. C. Babington.

R. Radula Weihe. Copse, Soothill, near Dewsbury, Sept., 1885.—P. F. Lee. "No. Your specimen seems to be *Podophyllus* Müll, in my opinion. It is published as found near Festiniog, N. Wales, by the Rev. W. Moyle Rogers, in the Journal of Botany, Jan., 1887."—C. C. Babington.

R. ———— ? Coxley Wood, near Dewsbury, Aug., 1886.— P. F. Lee. "I incline to place this, with some doubt under *infestus*."—C. C. Babington.

R. vestitus. Stoke by Nayland, Suffolk, Sept., 1886.—J. D. Gray. "Yes. *conspicuus* P. J. Müll."—C. C. Babington.

Callitriche pedunculata DC. Moat at Kew, Surrey, June 19, 1886.—G. K. Gude. "*hamulata*."—A. Bennett.

C. hamulata, var. —— ? Near Bowmore, Islay, July, 1886.— J. Fingland. "*hamulata*, a very enlarged form, var. ?—A. Bennett.

C. ———— ? Town foot Loch, Dumfries-shire, Oct. 21, 1886. —J. Fingland. "*C. autumnalis* L., but abnormal and queer form."—A. Bennett.

Valerianella carinata Lois. Aberdeen, 1876.—Leg. J. Tempere, comm. W. S. Harrison. "plant right; but station?"—A. Bennett.

Solidago —— ? Blair Athol, Perth, July, 1885.—P. Ewing. "*cambrica*."—A. Bennett.

Arctium minus Schk. Sanquhar, Dumfries-shire, Sept., 1886.—A. Davidson. "*intermedium* ?"—A. Bennett.

Cnicus ——— ? Woodbury, Devon, June, 1886.—F. C. King. "*Carduus pratensis* ×. hybrid ?"—A. Bennett.

Hieracium prenanthoides Vill. Wick River, Caithness, Aug., 1886.—A. Davidson. "*corymbosum*."—A. Bennett.

H. vulgatum Fr., var. *maculatum* auct. Cronkley Fell, Teesdale, Aug., 1883.—Leg. J. A. Wheldon, comm. W. S. Harrison. "*maculatum* ?"—A. Bennett.

H. tridentatum Fr. Teesdale, Yorks., Aug., 1883. Leg. J. A. Wheldon, comm. W. S. Harrison. "*crocatum* Fr."—A. Bennett.

H. pallidum Biv. Cronkley Fell, Teesdale, Aug., 1884.—Leg. J. A. Wheldon, comm. W. S. Harrison. "*vulgatum*."—A. Bennett.

H. murorum L. Studley, Yorks., 1882. Leg. J. A. Wheldon, comm. W. S. Harrison. "*vulgatum*."—A. Bennett.

H. ——— ? Tarval Braes, Caithness, Aug., 1886.—A. Davidson. "not enough to decide; perhaps *Dewarii* Syme ?"—A. Bennett.

H. ——— ? Watten Braes, Caithness, Aug., 1886.—A. Davidson. "*vulgatum*."—A. Bennett.

H. ——— ? Ellioch, Sanquhar, Sep., 1886.—A. Davidson. "*gothicum* Fr."—A. Bennett.

H. ——— ? Carnvan Sae, Glenshee, N. B., Aug., 1886.—P. Ewing. "*holosericeum*."—A. Bennett.

H. ——— ? Glas Tulchan, Glenshee, N. B., Aug., 1886.—P. Ewing. "*tenellum*."—A. Bennett.

H. ——— ? Loch na Gar, N. B., Aug., 1886.—P. Ewing. "*holosericeum*."—A. Bennett.

Mulgedium tartaricus Lam. Banks of mill-stream, Nayland, Suffolk, Sep., 1886. The gravel on which this plant grows was taken out of the river a few years ago.—J. D. Gray.

Statice ——— ? St. Osyth's Marsh, Essex, Aug., 1885.—J. Vaughan. "*Limonium*."—A. Bennett.

Lysimachia stricta Ait., and *Aster Novi-Belgii*. These plants were named for me by Mr. J. G. Baker. The former, which was first pointed out to me in August, 1883, by Miss Lizzie Jackson, of Brigsteer, grows in great profusion in a certain bay on the Lancashire shore of Windermere Lake. I have also found it, but very sparingly, on one of the islands, which is a Westmoreland station. The latter grows at the same place, in a clump covering about two square yards.—G. E. Martindale.

Fraxinus heterophylla Vahl. A solitary tree in a wood at Staveley, Westmoreland, Sep., 1886. It was shewn me by my sister, Miss C. E. Martindale.—G. E. Martindale.

Mentha ——— ? Loch Lindones, Fife, Aug., 1886.—P. Ewing. "*aquatica*."—A. Bennett.

Salix purpurea L., var. *Woolgariana* Borr. Bank of Nith, Dumfries, June, 1886.—A. Davidson. "*Woolgariana* ?"—A. Bennett.

S. repens L., var. —— ? Hampstead Heath, Middlesex, Aug. 2nd, 1886.—G. K. Gude. "*ascendens* Sm."—A. Bennett.

S. Borreriana Sm. Teesdale, July 2nd, 1886.—H. E. Fox. "Mr. Fox's specimen agrees fairly well. Syme, "English Botany," 3rd ed., says of this, "capsule and stalk glabrous," Babington does the same, but Hooker and Arnott, 8th ed., say "capsule glabrous, stalk of ovary hairy," and they were supplied by Mr. Borrer with specimens to illustrate his species. Smith had only seen the male plant, which alone he describes, Eng. Fl., Vol. 4, p. 174."—A. Bennett.

S. Weigeliana Willd. Roadside near High Force Hotel, Teesdale, July, 1886.—H. E. Fox. "Does not agree well with this, the leaves are more like those of *tenuior*. Between *Weigeliana* and *tenuior*.—A. Bennett.

S. phylicifolia L. Tees Bank, above High Force, Teesdale, July 2nd, 1886.—H. E. Fox. "Leaves remarkably like those of *laxiflora* but the catkins are much like those of *Davalliana*—*S. phylicifolia* f.!"—A. Bennett.

Epipactis ovalis Bab. (*atro-rubens* Schultz.). Not given in Baker's "Flora of the Lake District." I sent Mr. Baker a specimen, and in reply he said, "I have soaked out the labellum of the Cunswick Scar *Epipactis* and compared it with the "English Botany" figure of *atro-rubens* (*ovalis*, Bab.), and do not see any material difference between them." In Watson's "Topographical Botany" this plant is recorded for Westmoreland on the authority of Mr. J. Backhouse. In Smith's "English Flora," Vol. III., p. 42, it is recorded as having been gathered "at the bottom of the scar of Barrowfield Wood, near Kendall," by "Mr. Crowe." Barrowfield Wood is at the base of Scout Scar, and Cunswick Scar is merely a continuation of Scout Scar, so that the locality from which my specimens come is substantially the same as that discovered by Mr. Crowe.—G. E. Martindale.

Juncus nigritellus Don. Sandhills, Llandudno, July, 1886.—J. E. Griffith. "auct. Angl."—A. Bennett.

J. ——— ? Ruthwell, Dumfries-shire, Aug., 1886.—J. Fingland. "*supinus* var. *subverticillatus*."—A. Bennett.

Sparganium neglectum Beeby. Banks of Stour, Stoke by Nayland, Suffolk, Sept., 1886. This plant is abundant at Stoke by Nayland, and Nayland, on the banks of the Stour; it seems to quite take the place of *S. ramosum.* Mr. Beeby has seen and identified specimens from Nayland.—J. D. Gray.

Potamogeton heterophyllus Schreb. Loch Watten, Caithness, Aug., 1886.—A. Davidson. "*nitens* Weber."—A. Bennett.

P. heterophyllus Schreb. Town foot Loch, Dumfries-shire, Oct., 1886.—J. Fingland. "Yes."—A. Bennett.

P. ——— ? Town foot Loch, Dumfries-shire, Oct., 1886.—J. Fingland. "Probably *P. natans* (young ?), but too poor to name certainly."—A. Bennett.

Zannichellia pedunculata Reichb. Horsea, E. Norfolk, Aug., 1885.—H. T. Mennell. "*palustris* f."—A. Bennett.

Z. ——— ? Ditches at Pevensey Bay, Sussex, Aug., 1886.—A. R. Waller. "*pedunculata* Reichb."—A. Bennett.

Scirpus Tabernæmontani Gmel. Rocquame, Guernsey, Aug., 1886.—Miss M. Dawber. "*maritimus.*"—A. Bennett.

Carex flava L., var. *lepidocarpa* Tausch. Baildon, Yorks., June, 1881.—Leg. W. West, comm. W. S. Harrison. "var. *minor.*"—A. Bennett.

C. lepidocarpa Tausch. Bank of Wick River, Caithness, Aug., 1886.—A. Davidson. "*Oederi.*"—A. Bennett.

C. digitata L. Scout Scar and Barrowfield Wood, Westmoreland, May 22nd, 1886. Only once recorded for Westmoreland, having been gathered at Hutton Roof by J. Hindson (Baker's "Flora of Lake District," p. 223). Not recorded in Watson's "Topographical Botany."—G. E. Martindale. "*C. ornithopoda* Willd. A very interesting addition to its comital distribution, but may be found yet further north, as it occurs in Lapland, Norway to Bergen ! and Sweden !"—A. Bennett.

Spartina alterniflora Lois. Southampton, Sept., 1886.—Leg. Morris Miles, comm. J. Vaughan. "*Townsendi* H. and J. Groves."—A. Bennett.

S. alterniflora Lois. Southampton, Aug., 1885—F. H. Ward. "*Townsendi* H. and J. Groves."—A. Bennett.

Agrostis. Sandy ground, Southport, Lancashire, Aug., 1884.—F. C. King. Sent to Watson Botanical Exchange Club last year. Prof. Hackel reports as follows :—"No. 255. *Agrostis alba* L., var. *subjungens* (ined.). I never saw any form of this polymorphous species with so rigid foliage than in the present specimen. Perhaps this is due to local influences." Hackel in litt., Feb., 1887.—A. Bennett.

Chara ——— ? Pond, Colnbrook, Bucks., July, 1886.—G. K. Gude. "*vulgaris*."—A. Bennett.

C. fragilis Desv., var. —— ? Stagnant pool, old disused stone quarry, Sandal, nr. Wakefield, Aug., 1886.—P. F. Lee. "*C. fragilis*, var. *fulcrata* Gant."—A. Bennett. See Groves's Review of the British Characeæ.

Nitella flexilis Agardh ? Town foot Loch, Dumfries-shire, Oct., 1886.—J. Fingland. "*flexilis*."—A. Bennett.

CORRECTION IN NAME.

The plant which was circulated last year among members of the Watson Botanical Exchange Club under the name *Rubus foliosus*, by the Rev. E. F. Linton, from Sprowston, Norfolk, E., is now shewn to be a distinct species, and is described in the Journal of Botany (Vol. xxv., p. 82) under the name *Rubus lucens*, Linton. This name, however, is preoccupied by a Himalayan *Rubus*, and the Norfolk *Rubus* will be known as *R. lætus*, Linton.

THE BRITISH LINNÆA.

The British Branch of Linnæa numbers now rather over twenty members, of whom twelve contributed some 6,000 exemplars last autumn. The annual distribution of plants is now going on. Any wishing to join may communicate with the Secretary, Rev. W. R. Linton, Shirley, Derby.

LIST OF MEMBERS.

Rev. F. H. Arnold, The Hermitage, Emsworth.
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J. M. B. Taylor, Free Museum, Paisley, N.B.
Harold S. Thompson, 20, Bootham, York.
Miss Todd, 3, Portland Street, Gillygate, York.
Richard F. Towndrow, 2, Commercial Buildings, Malvern Link, Worcestershire.
John Vaughan, Alton, Hants.
Alfred R. Waller, Low Ousegate, York.
Frederic H. Ward, Springfield, near Tooting, London, S.W.
Chas. Waterfall, The Hague, Reinshaw, near Chesterfield.
F. B. Webb, Church Terrace, Cheadle, Staffordshire.
Alfred Wheeler, Ashentree Lane, Dover.

RULES.

1. The objects of the Watson Botanical Exchange Club are to promote more intercourse between British botanists, and to study, as much as possible, British plants belonging to critical genera.

2. The subscription is 5s. a year, and is due on Jan. 1st.

3. *a.* Members may send to the Distributor for the time being, before January 31st., each year, parcels of plants for distribution, and they will receive in return plants in proportion to the number and quality of those sent.

b. Each plant must bear a label giving the name, place where collected, collector's name, and date. To prevent possible confusion, it would be better, in the case of Roses, Salices, etc., to *affix* the label to the plant.

c. Several specimens of each plant should be sent, and they should be *good* specimens. *Scraps are not of the slightest use.*

d. No plants must be sent which are not included in the List of Desiderata for the current year.

e. Each member must let the Distributor have a London Catalogue of British Plants with a mark against his desiderata. These Catalogues should accompany the parcels. They will be returned in the return parcels. No MS. lists to be sent.

f. The plants in the parcels should be arranged in the order in which they are printed in the 8th ed. of the London Catalogue. Specimens of the same species should be put on separate sheets in one cover, with the name of the genus and species, and its number in the London Catalogue, written on the outside of the cover. These covers should all be of an uniform size.

4. Members will very much increase the scope and work of the club if they will send for examination any Batrachian Ranunculi, Rosæ, Rubi, Callitriches, Hieracia, Menthas, Potamogetons, Salices, Junci, Carices, Charas, &c.,—the study of critical species being one of the principal aims of the club. One specimen of each will be returned to the owner after examination.

In the case of Hieracia the colour of the styles should always be stated on the label.

The following quotation from Prof. Babington's "British Rubi," will show what a perfectly diagnosable specimen of a fruticose Rubus should consist of:—"To judge properly of a bramble from a preserved specimen we require a piece of the middle of the stem with more than one leaf; the base and tip of the stem are also desirable. Likewise a piece of the old stem with the flowering shoot attached to it; the panicle with flowers, and the fruit. We likewise want to know the direction of the stem throughout, of the leaflets, and of the calyx; also the shape of the petals and the colour of the styles; a note of these should be made when the specimen is gathered."

LIST OF DESIDERATA, 1887.

- Thalictrum Kochii
  - riparium
  - nigricans
- Anemone ranunculoides
  - apennina
- Ranunculus Bachii
  - submersus
  - Godronii
  - confervoides
  - penicillatus
  - confusus
  - marinus
  - tripartitus
  - omiophyllus
  - ophioglossifolius
  - acris, *vars.*
  - parvulus
  - europæa
  - incumbens
- Caltha Guerangerii
  - minor
  - radicans
- Delphinium Ajacis
- Pæonia corallina
- Epimedium alpinum
- Nymphæa minor
- Papaver somniferum, *vars.*
- Glaucium phœniceum
- Rœmeria hybrida
- Chelidonium laciniatum
- Corydalis bulbosa
- Fumaria muralis
  - densiflora
  - parviflora
- Mathiola incana
- Nasturtium siifolium
  - microphyllum
- Barbarea arcuata
- Arabis hispida, DC.
  - stricta
  - ciliata
  - hispida, Syme.
  - glabrata
  - Turrita
- Cardamine dentata
  - Hayneana
- Alyssum incanum
- Draba confusa
  - rupestris
- Erophila præcox
  - inflata
- Cochlearia Hortii
- Hesperis matronalis
- Sisymbrium polyceratium
  - pannonicum
  - Irio
- Erysimum orientale
- Camelina sativa
  - fœtida
- Subularia aquatica
- Brassica Napus
  - Rutabaga
  - Rapa, *vars.*
  - adpressa
  - Erucastrum
- Lepidium alatostyla
- Thlaspi perfoliatum
- Isatis tinctoria
- Cakile integrifolia
- Reseda alba
- Helianthemum Breweri
  - polifolium
- Viola permixta
  - sepincola
  - hirta, *vars.*
  - arenaria
  - lactea
  - intermedia
  - persicæfolia
- Polygala grandiflora
  - ciliata
  - amara, and *vars.*
- Frankenia pulverulenta
- Dianthus glaucus
  - cæsius
  - plumarius
  - Caryophyllus
  - prolifer
- Saponaria Vaccaria
  - puberula
- Silene Armeria
  - rosea
  - ang. × quinquevulnera
  - italica
- Cucubalus baccifer
- Holosteum umbellatum
- Cerastium pumilum
  - apetalum
  - triviale, *vars.*
  - Edmonstoni
  - arcticum
  - Andrewsii
  - trigynum
- Stellaria umbrosa
- Arenaria Gerardi
  - sulcata
  - uliginosa
  - tenuifolia, *vars.*
  - glutinosa
  - ciliata
  - norvegica
- Sagina maritima, *vars.*
- Sagina prostrata
  - spinosa
  - nivalis
- Spergula sativa
- Lepigonum salinum, *vars.*
  - glabrescens
- Polycarpon tetraphyllum
- Elatine hexandra
  - Hydropiper
- Hypericum angustifolium
  - maculatum
  - undulatum
  - decumbens
  - linarifolium
- Althæa officinalis
  - hirsuta
- Lavatera arborea
  - sylvestris
- Malva verticillata
  - borealis
  - parviflora
- Linum crepitans
- Geranium sangineum, *vars.*
  - striatum
  - nodosum
  - Raii
  - modestum
- Erodium moschatum
- Oxalis stricta
- Acer hebecarpum
- Genista pilosa
  - humifusa
- Ulex strictus
- Cytisus prostratus
- Ononis horrida
  - mitis
  - reclinata
- Medicago sylvestris
  - apiculata
  - lappacea
  - minima
- Trifolium pratense, *vars.*
  - Molinerii
  - stellatum
  - Bocconi
  - erectum
  - glomeratum
  - strictum
  - elegans
  - Townsendii
  - resupinatum
  - agrarium
- Anthyllis Dillenii
- Lotus corniculatus, *vars.*
  - angustissimus
  - Seringianus

- Lotus hispidus
- Astragalus alpinus
- Oxytropis uralensis
  - campestris
- Coronilla varia
- Vicia gracilis
  - lutea
  - lævigata
  - hybrida
  - bithynica, *vars.*
- Lathyrus Aphaca
  - hirsutus
  - sphæricus
  - latifolius
  - tuberosus
  - maritimus
  - acutifolius
  - niger
- Prunus fruticans
  - domestica
- Spiræa denudata
- Rubus, any of the fruticose section
- Dryas octopetala
  - pilosa
- Potentilla hirta
  - maculata
  - rupestris
  - Sibbaldi
- Alchemilla montana
  - conjuncta
- Agrimonia odorata
- Rosa Ripartii
  - involuta, *vars.*
  - hibernica and *vars.*
  - pseudo-rubiginosa
  - tomentosa, *vars.*
  - rubiginosa, *vars.*
  - micrantha and *vars.*
  - agrestis, *vars.*
  - canina, any *vars. except*
    - lutetiana
    - sphærica
    - dumalis
    - biserrata
    - urbica
    - frondosa
    - coriifolia
    - marginata
  - stylosa and *vars.*
  - arvensis, *vars.*
  - rubella
  - pomifera
  - gallica
  - lucida
  - cinnamomea
  - Dicksoni
  - sempervirens
- Pyrus rupicola
- Pyrus latifolia
  - scandica
  - hybrida
  - domestica
  - communis, *vars.*
  - Malus, *vars.*
- Cratægus Oxyacantha, *vars.*
- Saxifraga oppositifolia
  - Geum, *vars.*
  - hirsuta
  - umbrosa
  - Hirculus
  - rivularis
  - cæspitosa
  - Sternbergii
  - decipiens
  - sponhemica
- Ribes Uva-crispa
  - petræum
  - spicatum
- Tillæa muscosa
- Sedum Fabaria
  - album, *vars.*
  - dasyphyllum
  - sexangulare
  - reflexum
  - albescens
  - minus
  - Forsterianum and *vars.*
- Sempervivum tectorum
- Drosera subcaulescens
- Myriophyllum verticillatum
  - pectinatum
- Callitriche vernalis
  - Lachii
  - truncata
- Lythrum canescens
  - Hyssopifolia
- Epilobium brachycarpum
  - rosmarinifolium
  - parviflorum, *vars.*
  - Lamyi
  - ligulatum
- Ludwigia palustris
- Œnothera biennis
  - odorata
- Circæa intermedia, Lond. C.
  - intermedia (Ehrh.)
- Eryngium campestre
- Astrantia major
- Echinophora spinosa
- Physospermum commutatum
- Apium repens
  - Moorei
- Ammi majus
- Carum Carui
  - Bulbocastanum
- Pimpinella nigra
  - dissecta, Spreng.
- Pimpinella dissecta, Wallr.
- Anthriscus Cerefolium
- Seseli Libanotis
- Coriandrum sativum
- Œnanthe pimpinelloides
  - peucedanifolia
  - fluviatilis
- Siler trilobum
- Meum Athamanticum
- Ligusticum scoticum
- Selinum Carvifolia
- Archangelica officinalis
- Peucedanum officinale
  - Ostruthium
- Tordylium maximum
- Daucus gummifer
- Caucalis latifolia
  - daucoides
- Sambucus laciniata
- Galium ochroleucum
  - insubricum
  - Bakeri
  - nitidulum
  - elongatum
  - anglicum
  - Vaillantii
- Asperula taurina
  - arvensis
- Valeriana sambucifolia
- Centranthus ruber
  - Calcitrapa
- Valerianella eriocarpa
  - Auricula
  - mixta
- Scabiosa maritima
- Solidago angustifolia
- Aster Salignus
- Filago apiculata
  - spathulata
- Antennaria margaritacea
  - hyperborea
- Gnaphalium pilulare
  - luteo-album
  - norvegicum
- Inula salicina
- Xanthium strumarium
  - spinosum
- Diotis maritima
- Anthemis anglica
- Chrysanthemum Parthenium
- Matricaria salina
  - maritima
- Artemisia coarctata
  - gallica
- Doronicum plantagineum
- Senecio radiatus
  - viscosus
  - flosculosus
  - pinnatifidus

- Senecio saracenicus
  - paludosus
  - palustris
  - campestris
  - spathulifolius
- Arcticum, *any except* minus
- Carduus nutans × crispus
  - polyanthemos
  - acanthoides
- Cnicus tuberosus
  - oleraceus
  - horridus
  - setosus
  - hybridi
- Serratula monticola
- Centaurea Jacea
  - decipiens
  - paniculata
  - Calcitrapa
  - solstitialis
- Arnoseris pusilla
- Picris arvalis
- Crepis fœtida
  - nicæensis
  - hieracioides
- Hieracium, any *except*
  - Pilosella
  - aurantiacum
  - iricum
  - pallidum
  - murorum
  - vulgatum
  - tridentatum
  - prenanthoides
  - umbellatum
  - crocatum
  - boreale
- Hypochæris Balbisii
  - maculata
- Taraxacum palustre
  - udum
- Lactuca Scariola
  - alpina
- Prenanthes purpurea
- Sonchus arvensis, *vars.*
- Tragopogon grandiflorus
  - porrifolius
- Lobelia urens
- Phyteuma spicatum
- Campanula nana
  - lancifolia
  - speciosa
  - persicifolia
  - Rapunculus
- Vaccinium uliginosum
- Arbutus Unedo
- Arctostaphylos alpina
- Calluna Erica, *vars.*
- Erica Watsoni
- Erica Mackayi
  - vagans
  - mediterranea
- Phyllodoce taxifolia
- Dabœcia polifolia
- Pyrola maritima
  - secunda
- Moneses grandiflora
- Statice Limonium, *vars.*
  - Dodartii
- Armeria planifolia
  - plantaginea
- Primula vulgaris, *vars.*
  - scotica
  - acaulis, Lond. C.
  - hybridæ
- Cyclamen hederæfolium
- Lysimachia angustifolia
  - punctata
  - ciliata
- Anagallis cœrulea
- Erythræa capitata
  - latifolia
  - tenuiflora
  - sphærocephala
- Cicendia pusilla
- Gentiana præcox
  - germanica
- Limnanthemum peltatum
- Cynoglossum subglabrum
  - montanum
- Asperugo procumbens
- Anchusa officinalis
- Pulmonaria angustifolia
- Mertensia maritima
- Myosotis Mittenii
  - Balbisiana
- Cuscuta Epilinum
- Solanum Dulcamara, *vars.*
  - nigrum, *vars.*
- Lycium barbarum
- Datura Stramonium
- Verbascum Lychnitis
  - nigrum
  - virgatum
  - hybrida
- Linaria supina
  - Pelisseriana
  - purpurea
  - sepium
  - latifolia
- Scrophularia cinerea
  - Scorodonia
  - vernalis
- Sibthorpia europæa
- Veronica grandiflora
  - triphyllos
  - eximia
  - peregrina
- Veronica repens
  - spicata
  - hirsuta
  - parmularia
- Euphrasia officinalis, *vars.*
- Bartsia verna
  - divergens
- Melampyrum cristatum
  - arvense
  - pratense, *vars.*
  - sylvaticum
- Rhinanthus major, *vars.*
- Orobanche, *any species*
- Utricularia neglecta
  - intermedia
  - Bremii
- Pinguicula grandiflora
  - alpina
- Mentha alopecuroides
  - sylvestris, *vars.*
  - viridis
  - crispa
  - vulgaris
  - pubescens, *vars.*
  - citrata
  - sativa, *var.* subglabra
  - rubra
  - gracilis
  - cardiaca
  - pratensis
  - gentilis and *vars.*
  - arvensis, *vars.*
  - erecta
- Origanum megastachyum
- Calamintha Nepeta
  - Briggsii
  - sylvatica
- Salvia clandestina
  - pratensis
- Nepeta parviflora
- Scutellaria m. × galericulata
- Stachys germanica
  - annua
- Galeopsis angustifolia
  - dubia
  - bifida
- Leonurus Cardiaca
- Lamium intermedium
  - decipiens
- Ballota nigra, *vars.*
- Teucrium Chamædrys
- Ajuga pyramidalis
- Plantago intermedia
  - argentea
  - Timbali
  - minor
  - arenaria
- Illecebrum verticillatum
- Herniaria subciliata

- Herniaria ciliata
  - hirsuta
- Corrigiola littoralis
- Amaranthus retroflexus
- Chenopodium polyspermum, *vars.*
  - Vulvaria
  - album, *vars.*
  - opulifolium
  - ficifolium
  - hybridum
  - urbicum, and *vars.*
  - botryodes
  - glaucum
- Atriplex marina
  - patula, and *vars.*
  - hastata
  - deltoidea
  - prostrata
  - virescens
  - laciniata
  - pedunculata
- Salicornia herbacea, *vars.*
  - radicans
- Suæda fruticosa
  - procumbens
- Polygonum pseudo-dumetorum
  - dumetorum
  - aviculare, *vars.*
  - maritimum
  - mite
  - elatum
  - maculatum
  - viviparum
- Rumex rupestris
  - sanguineus
  - maritimus
  - palustris
  - sylvestris
  - acutus
  - conspersus
  - crispus, *vars.*
  - aquaticus
  - latifolia
  - alpinus
  - hybridi
- Asarum europæum
- Aristolochia Clematitis
- Daphne Mezereum
- Euphorbia Peplis
  - stricta
  - dulcis
  - coralloides
  - pilosa
  - Pseudo-cyparissias
  - Lathyris
- Mercurialis ambigua
- Ulmus montana, *vars.*
- Ulmus glabra
- Urtica angustifolia
  - Dodartii
- Parietaria fallax
- Betula glutinosa, and *vars.*
  - nana
- Quercus intermedia
- Salix cuspidata
  - fragilis, *vars.*
  - alba, *vars*
  - undulata
  - triandra, *vars.*
  - purpurea ,,
  - Doniana
  - rubra, *vars.*
  - daphnoides
  - intricata
  - stipularis
  - Smithiana
  - pseudo-stipularis
  - ferruginea
  - rugosa
  - acuminata
  - cinerea, *vars.*
  - sphacelata
  - laurina
  - phylicifolia, *vars.*
  - nigricans, and *vars.*
  - ambigua, *vars.*
  - repens ,,
  - lanata
  - lapponum, and *vars.*
  - Arbuscula ,,
  - Myrsinites ,,
  - Sadleri
  - Grahami, and *vars.*
- Populus glabra
- Ceratophyllum oxyacanthum
  - submersum
- Taxus fastigiata
- Pinus Pinaster
- Stratiotes aloides
- Malaxis paludosa
- Liparis Loeselii
- Corallorhiza innata
- Spiranthes æstivalis
  - Romanzoviana
- Epipogum aphyllum
- Cephalanthera rubra
  - ensifolia
- Epipactis media
  - purpurata
  - atro-rubens
- Orchis hircina
  - purpurea
  - militaris
  - Simia
  - laxiflora
- Aceras anthropophora
- Ophrys Trollii
  - arachnites
  - aranifera
  - fucifera
- Habenaria intacta
- Cypripedium Calceolus
- Iris citrina
  - Pseudacorus, *vars.*
  - tuberosa
- Crocus, *any species*
- Romulea Columnæ
- Sisyrinchium angustifolium
- Gladiolus illyricus
- Narcissus, *any except* Pseudo-narcissus
- Leucojum æstivum
  - vernum
- Asparagus prostratus
- Polygonatum verticillatum
- Simethis bicolor
- Allium Ampeloprasum, and *vars.*
  - sphærocephalum
  - vineale, *vars.*
  - complanatum
  - carinatum
  - Schœnoprasum
  - sibiricum
  - triquetrum
  - paradoxum
- Muscari racemosum
- Scilla verna
- Ornithogalum pyrenaicum
- Lilium pyrenaicum
  - Martagon
- Tulipa sylvestris
- Lloydia alpina
- Juncus fasciculatus
  - tenuis
  - balticus
  - filiformis
  - diffusus
  - supinus, *vars.*
  - acutiflorus, Buchenau
  - multiflorus
  - castaneus
  - capitatus
- Luzula arcuata
  - sudetica
  - pallescens
- Typha media
- Sparganium neglectum
  - affine
- Arum italicum
- Wolffia arrhiza
- Alisma lanceolatum
  - repens
- Elisma natans
- Damasonium stellatum

- Scheuchzeria palustris
- Potamogeton prolixus
  - polygonifolius, *vars.*
  - fluitans
  - spathulatus
  - sparganifolius
  - Lonchites
  - maximus
  - nitens
  - curvifolius
  - lucens, *vars.*
  - decipiens
  - salicifolius
  - Griffithii
  - prælongus
  - Jacksonii
  - serratus
  - zosteræfolius
  - major
  - fluvialis
  - Friesii
  - pusillus, *vars.*
  - Sturrockii
  - trichoides
  - scoparius
  - filiformis
- Ruppia rostellata
  - nana
- Zannichellia, *any except* palustris
- Zostera angustifolia
  - nana
- Naias, *any species*
- Cyperus fuscus
  - longus
- Eleocharis uniglumis
  - Watsoni
- Scirpus pauciflorus
  - pygmaeus
  - Holoschœnus
  - carinatus
  - triqueter
  - pungens
  - compactus
  - dissitiflorus
- Eriophorum alpinum
  - angustifolium, *vars.*
  - gracile
- Schœnus ferrugineus
- Kobresia caricina
- Carex Davalliana
  - rupestris
  - ligerica
  - Ehrhartiana
  - rigida
  - vulpinoides
  - Grypus
  - helvola
  - elongata
- Carex lagopina
  - alpicola
  - bracteata
  - alpina
  - Buxbaumii
  - turfosa
  - acuta, *vars.*
  - trinervis
  - inferalpina
  - aquatilis, *vars.*
  - Goodenowii, *vars.*
  - glauca ,,
  - irrigua
  - rariflora
  - digitata
  - montana
  - Leesii
  - ericetorum
  - capitata
  - tomentosa
  - ustulata
  - frigida
  - punctata
  - xanthocarpa
  - pumila
  - lepidocarpa
  - ebracteata
  - Kochiana
  - rostrata, *vars.*
  - diochroa
  - pulla
  - Grahami
- Panicum sanguinale
  - glabrum
- Setaria verticillata
- Spartina, *any species.*
- Phalaris paradoxa
- Anthoxanthum Puelli
- Hierochloe borealis
- Alopecurus pronus
  - Watsoni
- Phleum pratense, *vars.*
  - phalaroides
- Mibora verna
- Agrostis maritima
  - nigra
- Polypogon littoralis
- Gastridium lendigerum
- Apera interrupta
- Deyeuxia, *any species.*
- Ammophila baltica
- Aira aggregata
- Deschampsia cæspitosa, *vars.*
  - alpina
  - Voirlichensis
- Avena pratensis, *vars.*
  - strigosa
  - fatua, *vars.*
- Arrhenatherum nodosum
- Fibichia umbellata
- Phragmites communis, *vars.*
- Sesleria flavescens
- Koeleria cristata, *vars.*
- Molinia depauperata
- Catabrosa littoralis
- Poa stricta
  - laxa
  - glauca
  - Balfourii
  - nemoralis, *vars.*
  - compressa ,,
  - sudetica
  - pratensis ,,
  - trivialis ,,
- Glyceria plicata, and *vars.*
  - maritima, *vars.*
  - Borreri
- Festuca ovina, *vars.*
  - arenaria
  - dumetorum
  - sylvatica
  - elatior, *vars.*
- Bromus asper, *vars.*
  - villosus
  - madritensis, *vars.*
  - tectorum
  - velutinus
  - commutatus, *vars.*
  - mollis ,,
  - arvensis
- Brachypodium glabrescens
- Lolium perenne, *vars.*
  - linicola
- Agropyron biflorum
  - repens, *vars.*
  - pungens, and *vars.*
- Lepturus incurvatus
- Hordeum arenarium
- Trichomanes radicans
  - Andrewsii
- Asplenium fontanum
  - lanceolatum, and *vars.*
  - Adiantum-nigrum, *vars.*
  - acutum
  - anceps
  - Clermontæ
  - Ruta-muraria, *vars.*
  - germanicum
- Athyrium Filix-fœmina, *vars.*
  - alpestre
  - obtusatum
  - flexile
- Ceterach crenatum
- Woodsia ilvensis
- Cystopteris dentata
  - alpina
  - Dickieana
  - montana

- Polystichum angulare, *vars.*
- Lastræa Filix-mas, *vars.*
  - remota
  - cristata
  - uliginosa
  - spinulosa, *vars.*
  - dilatata ,,
- Polypodium serratum
- Gymnogramme leptophylla
- Ophioglossum polyphyllum
  - lusitanicum
- Botrychium incisum
  - lanceolatum
- Equisetum serotinum
  - Braunii
  - pratense
  - polystachyum
- Equisetum litorale
  - Moorei
  - trachyodon
  - variegatum, *vars.*
- Lycopodium recurvum
  - annotinum
  - complanatum
- Isoetes Moorei
  - echinospora
- Chara fragilis, *vars.*
  - fragifera
  - connivens
  - aspera, *vars.*
  - baltica
  - affinis
  - contraria
  - hispidula
- Chara papillosa
  - tomentosa
  - hispida, *vars.*
  - vulgaris ,,
  - canescens
  - Braunii
- Lychnothamnus stelliger
- Lamprothamnus alopecuroides
- Tolypella nidifica
- Nitella gracilis
  - mucronata
  - flexilis, *vars.*
  - attenuata
  - capitata

Any species or varieties not included in the Eighth Edition of the London Catalogue.

THE

FOURTH ANNUAL REPORT

OF THE

WATSON

Botanical Exchange Club,

1887-1888.

Referees:—

PROF. BABINGTON, M.A., F.L.S., etc., Cambridge.

ARTHUR BENNETT, F.L.S., High Street, Croydon.

Hon. Treasurer:—

P. F. LEE, Phan. Sec. Bot. Sect., Yorks. Naturalists' Union,
West Park Villas, Dewsbury.

Hon. Secretary:—

A. R. WALLER, Low Ousegate, York.

"Labor Omnia Vincit."

YORK:
WILLIAM SESSIONS, PRINTER, 15 & 16, LOW OUSEGATE.
1888.

REPORT FOR 1887.

Of the 3562 specimens contributed for the past year a very large proportion were interesting, or at least well-preserved plants. There were as usual some which the Distributor felt obliged to put into the return parcels as padding, but which members can only consign to the rubbish heap. The Club is under a great obligation to the two highest contributors, Miss Dawber and Mr. F. H. Ward, not only for their generosity, which the Club resources are totally unable to repay, but for the evident care bestowed on turning out beautiful and durable specimens. The smaller contributors benefit the most largely by this influx of wealth ; and will perhaps some day be equally liberal to the Club, when the opportunity occurs.

A few of the members (myself among the number) have given a great deal of work to Professor Babington, as the following pages testify ; and we are very grateful to him for his continued good offices. To Mr. Arthur Bennett we are also equally obliged, for so much valuable criticism and time spent on the numerous and varied specimens submitted to him.

Good work has been done among the *Rubi* during 1887, and with gratifying results. As a rule, members requiring a *Rubus* criticised should send three good specimens, viz. :—one for the Referee, one for the Writer of the Report, and one to return (if required). The same with other critical genera. Batrachian *Ranunculi* should have some ripe carpels on the specimens ; the *Salices* should have mature foliage, of August or September, accompanying the flower or fruit ; otherwise the Referee cannot fairly be expected to give a satisfactory opinion. The few specimens of these two genera sent in this year were deficient in these respects. *Salices* are easily grown, and watched by those who have gardens ; cuttings can be taken at any time of the year, in case the tree or bush be far out of the way,—provided that wood two or three years old be selected for the cutting.

A slight alteration has again been made in Rule 3. The work of the Distributor can be greatly facilitated by *all* the members using the same mark for their desiderata. Those who do not fall into the more usual method of marking desiderata, are liable to have the very plants allotted to them which they do not want; so hard is it for the Distributor to attend to individual vagaries, when manipulating 25 to 30 London Catalogues!

The parcels received are here acknowledged, with the numbers reckoned as specimens:—

List of Parcels Received.

Mr. A. Bennett, F.L.S.	209
Mr. Wm. A. Clarke	7
Mrs. T. A. Cotton	34
Dr. A. Davidson	99
Miss M. Dawber	584
Mr. Jas. Fingland	20
Rev. J. D. Gray, M.A.	178
Mr. J. E. Griffith, F.L.S.	423
Mr. G. K. Gude	24
Miss D. M. Higgins	17
Mr. P. F. Lee	55
Rev. E. F. Linton, M.A.	114
Rev. W. R. Linton, M.A.	366
Mr. A. E. Lomax	98
Mrs. E. A. Lomax	116
Mr. G. E. Martindale	43
Mr. H. T. Mennell, F.L.S.	41
Mr. D. Nicolson	137
Rev. W. H. Painter	60
Mr. R. Paulson	107
Mr. J. T. Powell	132
Captain Steuart	64
Mr. R. F. Towndrow	64
Rev. John Vaughan, M.A.	100
Mr. F. H. Ward	454
Mr. C. Waterfall	16
	3562

EDWARD F. LINTON, Distributor for the year 1887-88.

Thalictrum flavum, L., var. *riparium*, Jord. Mersey, Speke, Lancashire, July 20th, 1887.—A. E. Lomax. Shalford, Surrey, Sept. 24th, 1885.—W. R. Linton. Mr. Lomax's plant is var. *sphærocarpum* only, for certain. Mr. Linton's is the same, I consider; but Mr. Beeby was inclined to think it might be correctly named.—Arthur Bennett.

Ranunculus floribundus, Bab. Howley, S.W. Yorks., May, 1887.—P. F. Lee. Not *floribundus* for certain. It may be *peltatus*, but it is gathered too young to name with certainty, in this difficult sub-genus.—A. Bennett.

R. acris f. Willesden, Middlesex, May 8th, 1886.—W. R. Linton. I think this is *vulgatus*, Jord.—A. Bennett.

Fumaria muralis, Sonder. Brockenhurst, Hants, August 12th, 1887.—J. Vaughan. I believe correct, but it appears to have been starved, or from a very dry place.—A. Bennett.

F. densiflora, DC. Scarbro', E. Yorks., May, 1887. Coll. W. Robinson; comm. P. Fox Lee. Is *F. parviflora*.—A. Bennett.

Sisymbrium pannonicum, Jacq. (*S. altissimum*, L.). By the railway, Crosby, Lancashire, Sept. 7th, 1886.—A. E. Lomax. Appears to have grown very full and leafy under an English sky.—E. F. Linton.

Neslia paniculata. Waste corner, Sandal, S.W. Yorks., Aug., 1886.—P. F. LEE.

Anthyllis Vulneraria, L., var. *Dillenii.* Spear Head, Caithness, July 8th, 1887.—F. H. WARD. Porthdafeuch, Holyhead, June, 1887.—J. E. GRIFFITH. In the absence of ripe fruit one cannot suggest a better name.—A. Bennett.

Trifolium agrarium. Field near Watten, Caithness, July 18th, 1887.—F. H. WARD. Yes.—A. Bennett.

Prunus domestica, L. Moulin Huet, Guernsey, May 19th, 1887.—M. DAWBER. Mr. Baker thinks it may go under *P. domestica*, but shading off towards *insititia.*—A. Bennett.

Rubus suberectus, Anders. Dry copse, Sprowston, Norfolk, Sept. 28th, 1882.—E. F. LINTON. Surely not *suberectus* with such prickles. Is it not *plicatus ?*—C. C. Babington.

R. fissus, Lindl. ? Road-bank, Hatfield Chace, S.W. Yorks., Sept. 21st, 1887.—P. F. LEE. I believe *hemistemon.* Very badly dried !—C. C. Babington.

R. cordifolius, W. and N. Oak Hill, near Woodford, Epping Forest, Essex, Sept. 19th, 1887.—J. T. POWELL. *Cordifolius*, a form of *affinis.*—C. C. Babington.

R. incurvatus, Bab. Hedge by wood, Sprowston, Norfolk, July 28th, 1887.—E. F. LINTON. *Incurvatus*, but not quite typical.—C. C. Babington. Mr. Griffith's *incurvatus* (particulars not retained) was also confirmed.– E. F. L.

R. rhamnifolius, W. and N. Copse, Sprowston, Norfolk, July 23rd, 1887.—E. F. LINTON. I have specimens named *amplificatus* by Bloxam and *amphichloros* by Genev., which are very like this. But I am more inclined to call it *Muenteri*, of which, however, I have not seen authentic specimens.—C. C. Babington.

Ditto, Common, Sprowston, Sept. 12th, 1887.—E. F. LINTON. I feel almost sure this is *Muenteri.*—C. C. Babington.

Rubus ———. Ednaston, Derby, Sept. 5th, 1887.—W. R. LINTON. At first sight this is very like *sertiflorus*, but its barren stem differs in its armature. I think we may call it *ramosus*, Blox.—C. C. Babington.

R. pubescens, W. and N. The Warren, Buckhurst Hill, Epping Forest, Essex, Sept. 3rd, 1887.—J. T. POWELL. Also, *R. rusticanus*, Merc. High Beach, Epping Forest, Sept. 4th, 1887. —J. T. POWELL. These are difficult, and probably the same plant. I think they are *sertiflorus,*—not *certiflorus* as in the London Catalogue.—C. C. Babington.

R. pubescens, W. and N. Near Shirley, Derbyshire, July and Sept., 1887. Named for me by Dr. Focke.—W. R. LINTON. I see Focke mentions a glabrous-leaved form of *pubescens*, and

Genev. combines his glabrous-leaved *secophilus* with *pubescens* in his ed. 2. So I suppose that this must be named *pubescens.* —C. C. Babington.

R. leucostachys, Sm. Hawk wood, Chingford, Essex, Sept. 8th, 1887.—R. Paulson. *Leucostachys*, var. *conspicuus*, my former *vestitus*.—C. C. Babington.

Ditto, Whitley, near Dewsbury, S.W. Yorks., August, 1887.—P. F. Lee. *Leucostachys* probably. Leaves very poor. —C. C. Babington.

Ditto, Lark's wood, Hale End, Essex, July 27th, 1887.—R. Paulson. High Beach, Epping Forest, Essex, Sept. 10th, 1887.—J. T. Powell. Correct.—C. C. Babington.

Ditto, var. *conspicuus,* Müll. Banks of Ogwen River, near Bethesda, Sept., 1887.—J. E. Griffith. *Leucostachys.*—C. C. Babington.

R. leucostachys, var. ? Mousehold Heath, Norfolk, July 26th, 1887.—E. F. Linton. Hardly *leucostachys*. See under-side of the leaves. Is it not *pyramidalis*, Kaltenb. ?—C. C. Babington.

R. pyramidalis, Kalt. Mousehold Heath, Norfolk, July, 1887. —J. D. Gray. So Dr. Focke named it.—E. F. L.

R. carpinifolius, W. and N. Shirley, Derby, July 13th, 1887. Named by Dr. Focke.—W. R. Linton. This is hardly the same as Weihe's specimen published by Reichenbach as typical (Fl. exsicc. Germ. 874). It seems to me very much more like *gratus*, Focke, although it does not quite exactly accord. I have a fine series of *gratus* before me, and believe this to be it. —C. C. Babington.

R. Maassii, Focke. Roadside, near Bodorgan station, Anglesey, August, 1887.—J. E. Griffith. *Maassii* probably; unsatisfactory specimen.—C. C. Babington.

R. gratus, Focke. Mousehold Heath, Norfolk, July, 1887.—J. D. Gray. Named formerly for me by Dr. Focke.—E. F. L.

Rubus ———. Shady lane by wood, Sprowston; and wet copse, Beeston St. Andrew, Norfolk; Sept. 21st, 1887.—E. F. Linton. These two are probably the same plant, which if not *Salteri* is perhaps *leucandrus*, Focke, for they very closely resemble my authentic specimens of the latter.—C. C. Babington.

R. amplificatus, Lees. Roadside hedge, Sprowston, Norfolk, Sept. 21st, 1885.—E. F. Linton. *Amplificatus.*—C. C. Babington.

R. rosaceus, W. and N. Near Llanberis, Carnarvon, August, 1887.—J. E. Griffith. *Rosaceus* never had such a stem. I think it is a very prickly form of *Lejeunii.*—C. C. Babington.

Ditto. Near Shirley, Derby, July, 1887.—E. F. and W. R. Linton. This is *rosaceus.*—C. C. Babington.

R. echinatus, Lindl. Lark's Wood, Chingford, Essex, Aug. 24th, 1887.—J. T. POWELL. *Echinatus* = my former *rudis*. The felt is very slight.—C. C. Babington.

Ditto? Near Connaught Water, Epping Forest, Essex, Sept. 10th, 1887.—J. T. POWELL. *Rosaceus*, which is a form of *Hystrix*.—C. C. Babington.

R. echinatus, Lindl.? Hawk Wood, Chingford, Essex, Aug. 24th, 1887. High Beach, Epping Forest, Aug., 1887. Chingford, Essex, Sept. 9th, 1887.—R. PAULSON. One or two of each, the three lots all under one cover: an arrangement that is awkward for the distributor. The first of the three is rightly named. The second and third are *R. rosaceus*.—E. F. Linton.

R. echinatus, Lindl. High Beach, Epping Forest, Aug. 20th, 1887.—J. T. POWELL. Can this be *rosaceus?* Probably.—C. C. Babington.

R. rudis. Wiston, Suffolk, Sept., 1887.—J. D. GRAY. What is now distinguished as *echinatus*.—E. F. L.

R. Radula, Weihe, form. Sprowston, Norfolk, July 26th, 1887. Mousehold Heath, Norfolk, Sept. 30th, 1887.—E. F. LINTON. Both *Newbouldii*.—C. C. Babington.

R. Gelertii, Friderichsen. Copse and hedgerow, Sprowston, Norfolk, Sept. 10th, 1887. Named for me by Dr. Focke.—E. F. LINTON. I agree with you and Focke. I have good specimens from K. Friderichsen from Schleswig before me. It is considered as very closely allied to *Muenteri*. I see that Friderichsen says that it has some setæ on the panicle. They are what I call "sunken setæ," and I find them also on your specimen, which seems exactly like the Schleswig plant.—C. C. Babington.

R. Kœhleri, Weihe. Lark's Wood, Hale End, Essex, Aug. 24th, 1887.—R. PAULSON and J. T. POWELL. Apparently *velatus*, closely allied to *Kœhleri*.—C. C. Babington.

R. Kœhleri, Weihe. Coxley valley, Dewsbury, S.W. Yorks., 1887.—P. F. LEE. *Fusco-ater*.—C. C. Babington.

R. Kœhleri, var. *pallidus*, Bab. Biddulph, Staffordshire, Oct., 1886.—W. H. PAINTER. Yes; a weak form of *our pallidus*, not of W. and N.—C. C. Babington.

R. Kœhleri, var. *cavatifolius*, Müll. Perfeddcoed Road, near Bangor, August, 1887.—J. E. GRIFFITH. *Cavatifolius*.—C. C. Babington.

R. fusco-ater, Weihe. Penhower Road, near Bangor, August, 1887.—J. E. GRIFFITH. *Kœhleri*, var. *infestus*, Bab.—C. C. Babington.

R. diversifolius, Lindl. Near Dinas, Tregarth, Bangor, Sept., 1887.—J. E. GRIFFITH. Mousehold Heath, Norwich, Sept. 5th, 1887.—E. F. LINTON. Mr. Griffith's plant is *mutabilis*. Mr. Linton's specimens agree well with a specimen from Reigate which Focke determined to be the true *rudis*, Weihe. He says that my *rudis* = *echinatus*, Lindl., and so I believe it does. —C. C. Babington.

R. flexuosus, M. and L. (*Guntheri*). Near High Beach, Epping Forest, Essex, Oct. 15th, 1887. Rare in the Forest.—J. T. POWELL. Yes.—C. C. Babington.

R. Lintoni, Focke. Sprowston, Norfolk, July 26th, 1887.—J. D. GRAY. This is the same as what passed before under the names, *R. lucens* and *R. lætus*, Linton. These names, however, being already in use, had to give way to that which Dr. Focke recommended. Members who received specimens a year ago will please alter their labels.—E. F. Linton.

R. Bellardi, Weihe. Biddulph, Staffordshire, Oct. 1886.—W. H. PAINTER. This seems probably the *erythradenes* of Müll., which is closely allied to *pendulinus*. That differs from it "par la petite inflorescence et les folioles finement dentées." Although possibly not distinct from *pendulinus*, the panicle here is not at all like *pendulinus*.—C. C. Babington.

R. Bellardi, Weihe. Copse in Sprowston, Norfolk, July, 1884. —E. F. LINTON. This must I think go to *rotundifolius*, Blox. = *deflexidens* of Boulay ; but the former is much the older name. —C. C. Babington.

R. pendulinus ? Polstead Marsh, Suffolk, Sept., 1887.—J. D. GRAY. Probably very fine *pendulinus*.—C. C. Babington.

R. tereticaulis, P. J. Müll. Copse, Sprowston, Norfolk, July 27th and Sept. 3rd, 1887. This name was given by Dr. Focke. It is what I had regarded as a form of *Bellardi*.—E. F. LINTON. I have an authentic specimen of *tereticaulis* from P. J. Müller in the Herb. Genev. It is just your plant, if we except minute differences in the dentition of the leaves. It seems to approach very closely to my *flexuosus*, i.e. our former *Guntheri*.—C. C. Babington.

R. corylifolius, Sm. Professor Babington thinks this is a very strong form of *conjungens*. Llangaffo, Anglesey, Oct., 1887.—J. E. Griffith.

R. Balfourianus, Blox. Near Dinas, Dindryfal, Anglesey, Oct., 1887.—J. E. GRIFFITH. *Sublustris*, Lees.—C. C. Babington.

R. dumetorum, var. *concinnus*, Warren. Cressbrook Dale, Derby, Aug., 1880. This *Rubus* was named for me by the Rev. W. H. Purchas, but I consider it to be *R. scabrosus*, Müll.—W.

H. Painter. I think that this is a form of *scabrosus.*—C. C. Babington.

R. caesius, L., var. ? On limestone, Ingleton, N.W. Yorks., Aug., 1887.—P. F. Lee. Sprowston, Norfolk, Sept. 28th, 1885. —E. F. Linton. Both apparently var. *tenuis.*—C. C. Babington.

Rubus ———. Wood at Claughton, Cheshire, Sept. 14th, 1886.—A. E. Lomax. *Diversifolius,* I suppose, but not certainly. —C. C. Babington.

Rubus ———. Bank by wood, near Hastings, Sept., 1887.—R. Paulson. This may be *teretiusculus,* Kaltenb., but that has a few short setæ on the stem. I find no trace of them here. Can it be a weak form of *Schlectendahlii ?*—C. C. Babington.

Rubus Nos. 2, 3, 4, 6, 9. Chelsham, Surrey, August, 1886.—H. T. Mennell. No. 2. *Lejeunii.* No. 3. I think it is *pyramidalis,* Kalt. No. 4. *Corylifolius,* a. *sublustris.* People should *try* to name their specimens before sending them. How otherwise are they to learn ? No. 6. *Rosaceus.* No. 9. *Schlectendahlii.*—C. C. Babington.

Rubus No. 10. Titsey woods, Surrey; bright red petals.—H. T. Mennell. Foliage bad: more care should be taken. *Pyramidalis,* Kalt. ?—C. C. Babington. A better barren shoot of this should be supplied another time; only one poor piece sent.—E. F. L.

Rosa micrantha, Sm. Near Gloddaeth, Llandudno, August, 1887.—J. E. Griffith. I consider this a *rubiginosa* form, not *micrantha.* The prickles are like those of the vars. *sylvicola* and *comosa* ; but the fruit has not reached its final shape and is not distinguishable from ordinary *rubiginosa.* This should be looked after about Michaelmas. Mr. Bennett, referring to a note from me upon this, says, "As with you Mr. Baker would put it under *R. rubiginosa.*" With the specimen I took for myself was a piece of *R. agrestis* (*sepium*), by accident, I suppose. —E. F. Linton.

R. micrantha, Sm. Near Bangor, September, 1887.—J. E. Griffith. Correct.—E. F. Linton.

R. tomentosa, Sm., var. *subglobosa,* Sm. Wensleydale, Yorks., August, 1887.—C. Cotton. Good *subglobosa.*—E. F. Linton.

R. canina, L., var. *collina,* Jacq. Shirley, Derby, July 4th, 1887.—W. R. Linton. Mr. Baker agrees with the name I altered this to, viz. *R. Koscinciana,* Besser.—A. Bennett.

R. canina, L., var. *cæsia,* Sm. Bradley, Derby, July, 1887.—W. R. Linton. Correct.—A. Bennett.

R. canina, L., var. *Reuteri,* Godet. Wensleydale, Yorkshire, August, 1887.—C. Cotton. Correct.—E. F. Linton.

R. subcristata, Baker. Wensleydale, Yorkshire, August, 1887. —C. COTTON. Atlow, Derbyshire, September 13th, 1887.— W. R. LINTON. Both right.—E. F. Linton.

R. Watsoni, Baker. Wensleydale, Yorkshire, August, 1887.— C. COTTON. Correct.—A. Bennett.

Crataegus Oxyacantha, L., var. Settle, Yorks., July, 1887.— W. H. PAINTER. Seemingly intermediate between *oxyacanthoides* and *monogyna*.—A. Bennett.

Callitriche autumnalis, L. Ayr.—A. DAVIDSON. *C. autumnalis*. New to County 75.—A. Bennett.

Circaea alpina, L., var. *intermedia*, Ehrh. Border of Windermere Lake, July, 1887.—ELIZ. LOMAX. Owing to the immature state of the fruit, I am unable to satisfy myself, whether to refer it to *alpina*, or to *lutetiana*.—A. Bennett. On my specimen the fruits which should have matured have all dropped off, without forming. I may mention that about a year ago plants from the same locality, gathered by the same collector, were passed by Mr. J. G. Baker as named above.—E. F. L.

Œnothera odorata, Jacq. L'Ancresse, Guernsey, July 1st, 1887. —M. DAWBER.

Œnanthe peucedanifolia, "Poll." Askham Bog, York, August, 1887.—CHARLES WATERFALL. *Œnanthe Phellandrium*.—A. Bennett.

Galium silvestre, Poll., var. *nitidulum*, Thuill. Matlock, Derbyshire, June 21st, 1887.—A. E. LOMAX.

Diotis maritima, Cass. St. Ouen's, Jersey, Sept. 23rd, 1887. —M. DAWBER. Miss Dawber has sent some beautifully dried specimens of this plant, so hard now to find in England.—E. F. L.

Matricaria maritima, L. Bideford, Devon, July, 1883.—D. M. HIGGINS. Is var. *salina*, not *maritima*.—A. Bennett.

M. maritima, L. Noss Head, Caithness, July, 1886. *M. maritima*, L., does not in my opinion deserve the name of species or even variety. The forms on our cliffs are widely different in appearance and habit from those of *M. inodora* in the fields above; but where there is an extent of sloping shore, the one form gradually passes into the other.—D. NICOLSON. I think this is correct. It certainly does not seem to be the same as Mr. Beeby's Shetland form, and although not so strong *maritima* as a specimen I possess gathered by Mr. Brotherston, still it may go under that name.—A. Bennett.

Artemisia vulgaris, L., var. *coarctata*, Forcell. Dalwhinnie, Inverness, August 5th, 1887.—A. E. LOMAX. The specimen looks to me rather an undeveloped one than the variety, according to specimens which Prof. Babington has passed as correct.—A. Bennett.

Artemisia maritima, L., var. *gallica*, Willd. Near Sandwich, Oct. 10th, 1887.—F. H. WARD.

Senecio vulgaris, L., var. *radiatus*, Koch. L'Ree, Guernsey, July 2nd, 1887.—M. DAWBER.

Arctium ———. Roundstone, Galway, August 11th, 1885.—W. R. LINTON. Too poor to name with any certainty.—A. Bennett.

Arctium ———. Ramsey, Hunts., Sept., 1885.—W. R. LINTON. *A. majus*.—A. Bennett.

Arctium intermedium, Lange. Buckden, Hunts., Sept., 1885. *A. majus* and *minus* grow intermixed along the bank whence these specimens were gathered. All these specimens except the three lowest are from one plant whose habit was distinct from ordinary *minus*. Mr. Beeby saw specimens from this plant and considered they might come under *intermedium*.—W. R. LINTON.

Carduus acanthoides, L. Southoe, Hunts., September, 1886. —W. R. LINTON. Mr. Bennett states that on comparing *C. acanthoides*, L. with *C. litigiosus*, he finds that they are essentially the same plant; but that the specimens from Southoe, Hunts., are not *acanthoides*, but *crispus*.—E. F. L.

Centaurea nigra, L., var. *decipiens*, Thuill. Cliffs near Swanage, Sept. 29th, 1887.—F. H. WARD. May pass I suppose for the variety. A specimen sent by Mr. R. Paulson as *Centaurea Jacea* is nothing but *C. nigra*.—A. Bennett.

Hieracium Pilosella, L., var. *Peleterianum*, Mer. South Cliffs, Guernsey, June 13th, 1887.—M. DAWBER.

H. cæsium, Fr. Winch Bridge, Teesdale, Durham, June 26th, 1887.—H. T. MENNELL.

H. vulgatum, Fr., var. *maculatum*. Bank of Nith, Sanquhar, August, 1887.—A. DAVIDSON.

H. vulgatum, Fr.? Crawich, Sanquhar; late flowering, August and September, 1887. This is apparently *vulgatum* in everything save the styles and time of flowering.—A. DAVIDSON. Nothing but *H. vulgatum*; I have found it, near Rugby, with yellow styles, though this is not usual; and the late flowering is evidently due to the main stem having been nibbled down.—E. F. Linton.

H. gothicum, Fr. Winch Bridge, Teesdale, Aug., 1886.—H. T. MENNELL. Correct, I believe.—A. Bennett. In the remaining sheet, which I kept, are two specimens under the above label; one is *gothicum*, though being a secondary stem, it does not at first sight look much like *gothicum*. The other plant is probably *rigidum*, but is a poor specimen, and not typical.—E. F. Linton.

H. corymbosum, Fr. Teesdale, Aug., 1886. *Style livid.*—H. T. MENNELL. This seems to me to be *H. strictum*, auct. angl., a plant which I know in Aberdeenshire. Mr. Bennett, referring to a note of mine to that effect, writes, "I agree with you in thinking this is *H. strictum*, Backh., non Fries; although Mr. Mennell submitted most of his specimens to Mr. Backhouse." —E. F. Linton.

Hieracium ——— ? Bank of Nith, Sanquhar, 1887. Styles yellow.—A. DAVIDSON. *H. corymbosum*, Fries. A very interesting addition to Dumfries (72).—E. F. Linton.

Hieracium ——— ? Banks of Nith (abundant), Dumfriesshire. Leaf hairy, styles yellow.—A. DAVIDSON. It does not look to me as if the styles of this plant were originally yellow. In the preceding they evidently were. In this, I doubt very much: the style-sheaths were yellow, but scarcely the styles themselves. Anyway, I have little hesitation in calling this *H. boreale*, Fr. Dumfries is one of the few counties for which it is not recorded in Topographical Botany, Ed. 2.—E. F. Linton.

Taraxacum palustre, DC. Shirley, Derbyshire, June 11th, 1887.—W. R. LINTON. Hungerhills, Dewsbury, S.W. Yorks., May, 1887.—P. F. LEE. These were omitted by accident from being sent to Mr. Bennett. Mr. Linton's plant is right. Mr. Lee's will hardly do, having neither the leaves nor the bracts of *palustre*. The specimens are too young for certain determination.—E. F. Linton.

Lactuca saligna, L., var. *runcinata* (*vide* Sowerby's Engl. Bot.). River bank, Plumstead, August 8th, 1887.—F. H. WARD. Correct.—A. Bennett.

Primula vulgaris, Huds. Copse, Alton, May 23rd, 1887.—J. VAUGHAN. Seems to be the variety known as *intermedia*, which probably is not permanently different from *caulescens*.—E. F. L.

P. scotica, var. *acaulis*. Holburn Hill, Caithness, July 8th, 1887.—F. H. WARD. Keiss Links, Caithness, August, 1885. *P. acaulis* is not a variety, but a form, apparently dependent on the vigour of the plant. This plant may be found in flower from the middle of April to the middle of September. *Acaulis* is found occasionally all through the summer, but chiefly at the end of August. It is rare in some seasons. I enclose a few specimens which shew the old scape and the form *acaulis* on a side shoot on the same root. The old scapes were quite fresh and green when the specimens were gathered.—D. NICOLSON.

Scrophularia vernalis, L. Gloddaeth, Llandudno, May, 1887. —J. E. GRIFFITH.

Orobanche Hederæ, Duby. Moulin Huet, Guernsey, July 12th, 1887.—M. DAWBER. *O. minor* only, I consider.—A. Bennett.

O. amethystea, Thuill. Sea-cliffs, Downderry, Cornwall, June 17th, 1887. On *Daucus*.—J. VAUGHAN. I believe correct; this is easily recognisable when growing, but all *Orobanchæ* are difficult when dried.—A. Bennett.

Scutellaria galericulata × *minor*. Virginia Water, Surrey, August, 1883.—Leg. G. NICHOLSON; comm. ARTH. BENNETT.

Mentha viridis, L. Gwythian, West Cornwall, Sept., 1886. —Coll. WM. CURNOW; comm. A. STEWART. Looks correct, but seems a starved specimen, or a side shoot only.—A. Bennett.

M. rubra, Sm. Shirley, Derbyshire, August 29th, 1887.—W. R. LINTON. "Yes, but not typical."—Mr. J. G. Baker through A. Bennett.

M. Nummularia, Schreb. Cornfield, Sanquhar, Dumfries, Sept., 1887.—A. DAVIDSON. This is not good *Nummularia*, too hairy; but still it recedes from the type towards that variety. —A. Bennett.

Stachys palustris × *sylvatica*. Dewsbury, S.W. Yorks, 1887.—P. F. LEE. Calyx and leaf-petioles certainly put it under the hybrid, but the whole habit of the plant is much more *palustris* than *sylvatica*, and is very different to the Orkney *ambigua* of Dr. Boswell.—A. Bennett.

Atriplex marina L. L'Ree, Guernsey, July 3rd, 1887.—M. DAWBER. Yes.—A. Bennett.

A. deltoidea, Bab. Cobo, Guernsey, July 31st, 1887.—M. DAWBER. Is *A. Babingtonii*, Woods.—A. Bennett. Hort., Bangor, August, 1887.—J. E. GRIFFITH. This is not the plant of Babington. I think it is *erecta*, but the fruit is immature, and the central stem cut off, so it is dubious.—A. Bennett. The remaining specimens which Mr. Griffith has sent will not do for a *patula* form. They would come under *hastata* or *deltoidea*. Can Mr. Bennett's specimen have been mixed in by mistake? —E. F. Linton.

A. deltoidea, Bab. Willesden, Middlesex, Sept., 1886.—W. R. LINTON. Excellent *deltoidea*.—A. Bennett.

Polygonum aviculare, L., var. Malvern Link, Worcester, August 12, 1887. I think this must be *rurivagum*, Jord. R. F. TOWNDROW. How it it possible to name such a specimen? there is not a single flower or fruit on it: such are perfectly useless.—A. Bennett.

Ditto, Corn-field, Fyfield, Essex, August, 1887.—R. PAULSON. Almost as bad as the preceding, but I think a form of the var. *vulgatum*.—A. Bennett.

Ditto, Clapton, Middlesex, September, 1887.—R. PAULSON. Var. *arenastrum*.—A. Bennett.

P. alpestre. Naturalized on Kew Green, Surrey, Sept. 12th, 1887.—F. H. WARD. Yes.—A. Bennett.

Urtica dioica L., var. *angustifolia*, A. Blytt. Near Bromborough, Cheshire, Aug. 28th, 1887.—A. E. LOMAX. I do not know on what authority Mr. Lomax names this "var. *angustifolia*, A. Blytt," or whether that is the same as the var. *angustifolia* of the 8th ed. of Prof. Babington's Manual, as he gives no authority, but in the first edition he puts it as of "W. et G." I have not access to the Flora Silesica of these authors, but the plant is not named by Garcke, or Ascherson in their Floras. Blytt described his plant in his Vegetation of the Sogne Ffiord, referring to the *b. holosericœa* of Hartmann with a doubt; but Hartmann refers this to Fries' Nov. Fl. Suec. ed. 2. Anyhow Mr. Lomax's specimen almost exactly agrees with the var. *microphylla*, Hausemann, a specimen of which I have from the late Herr von Uechtritz; I suppose it to be described in Hausemann's Flora v. Tirol, but I have not access to that here.

Mr. Lomax's specimen differs only in being more hairy, but it is not so hairy as Blytt describes his plant: *i.e.* "Greyish (with) shaggy" (hairs).—A. Bennett.

Salix alba, L., var. Newpool, Malvern Wells, May 18th, 1887. The catkins shorter and stouter than those of the type, and the scales much longer, indeed fully as long as those of *vitellina*, from which, however, it differs considerably, conspicuously in the different hue of the bark and leaves.—R. F. TOWNDROW. I am unable to name this *Salix*: material insufficient.—A. Bennett.

S. Woolgariana, Borr. Banks of Nith, Sanquhar, Dumfries, June, 1887.—A. DAVIDSON. Yes, agrees very well with the capsules; but mature leaves ought to be sent.—A. Bennett.

S. nigricans, Sm. Euchan Head, Sanquhar, Dumfries, June, 1886.—A. DAVIDSON. Yes. Difficult to put to a variety without leaves.—A. Bennett.

Spiranthes aestivalis, Rich. Grand Mare, Guernsey, July 27th, 1887.—M. DAWBER.

Cephalanthera ensifolia, Rich. Copse, Bentworth, Hants., June 16th, 1887.—Leg. G. B. Whyley; comm. J. Vaughan.

Epipactis atro-rubens, Schultz. Base of Cunswick Scar, Westmoreland, August 11th, 1886.—G. E. MARTINDALE. I fail to see *atro-rubens* in this: simply *latifolia*.—A. Bennett.

Romulea columnœ, Seb. and Maur. L'Ancresse, Guernsey May 3rd, 1886.—M. DAWBER.

Allium triquetrum, L. Catêl, Guernsey, June 15th, 1887.—M. DAWBER.

Juncus diffusus, Hoppe. Osmaston, Ashbourne, Derbyshire, July 9th, 1887.—W. R. LINTON. Correct. New record for 57, additional to Topogr. Botany, but recorded in "Journal of Botany," 1887, p. 142.—A. Bennett.

J. bufonius var. ? Border of Windermere Lake, August, 1887. —ELIZ. LOMAX. *J. supinus*.—A. Bennett.

Sparganium neglectum, Beeby. Stour banks, Stoke by Nayland, Suffolk, September, 1887.—J. D. GRAY.

Ditto, Marshy corner of thicket, Bretton, S.W. Yorks, 1887. —P. F. LEE. *S. ramosum*, Mr. Beeby says it is the var. *microcarpum* of Neumann.—A. Bennett.

Potamogeton tenuissimus. Halkirk, Caithness, August, 1886. —A. DAVIDSON. I think correct; but I wish Dr. Davidson would gather more material, as it does not well agree, and has the facies in some respects of *P. rutilus*, Wolf., or var. *rigidus*, of Orkney.—A. Bennett.

Potamogeton Griffithii, A. Benn. Llyn-an-afon, near Aber, Carnarvon, June, 1887.—J. E. GRIFFITH.

Cyperus fuscus, L. Shalford Common, Surrey, August 29th, 1887. The pond where it grows was completely dried up this year, and only a few dwarf specimens could be found.—F. H. WARD.

C. longus, L. St. Andrew's, Guernsey, August 20, 1887.— M. DAWBER. A splendid series of specimens.—E. F. L.

Scirpus pauciflorus, Lightf. Loch Winless, Caithness, July 16th, 1887.—F. H. WARD. August, 1886.—A. DAVIDSON. The latter is correct: and I think the former is, but the fruits are shrunken, and so a little uncertain.—A. Bennett.

S. carinatus, Sm. Thames bank, near Mortlake, Surrey, Sept. 16th, 1887.—F. H. WARD. Yes.—A. Bennett.

S. pungens, Vahl. S. Ouen's Pond, Jersey, June 12th, 1885. —F. H. WARD. Yes.—A. Bennett.

S. pungens, Vahl. St. Ouen's, Jersey, Sept. 23rd., 1887.— M. DAWBER. Yes; the first time I have seen good fruit of it from Jersey.—A. Bennett.

Carex ovalis, Good., var. *bracteata*, Syme. Malvern Link Common, Worcester, June 27th, 1887.—R. F. TOWNDROW.

C. ericetorum, Poll. Near Mildenhall, Suffolk, May 17th, 1887. —F. H. WARD. Yes, *C. ericetorum*.—A. Bennett.

Carex paludosa, Good., var. *Kochiana*, Gaud. River-side marsh, near Brandon, Norfolk, June 15th, 1887.—J. D. GRAY. In the series of specimens sent by Mr. Gray, there are some it is difficult to separate from the type, others that certainly approach the description of the var.; the difference in the divergence of the fruits seems to be ignored in various specimens from Germany, France, &c., but I have not seen a sp. named by De Candolle. Dr. Boswell remarks (Eng. Botany), "the transition from var. *a* to *b* is so gradual that it is impossible to say where one begins and the other ends."—A. Bennett.

Panicum miliaceum. Waste Ground, Mortlake, Sept. 12th, 1887.—F. H. WARD. I suppose correct, but it is an extremely difficult genus to determine.—A. Bennett.

Spartina stricta, Roth. Walton-on-the-Naze, Essex, July 29th, 1887.—J. T. POWELL.

Ditto, Sept. 7th, 1887.—J. VAUGHAN. Chichester Creek, Oct. 5th, 1887.—F. H. WARD.

Spartina ———. Southampton, August 1st, 1887.—Leg. MORRIS MILES; comm. J. VAUGHAN. *S. Townsendii*, Groves. —A. Bennett.

Agrostis alba, L. var.? Caithness.—A. DAVIDSON. I am unable to put this to a named form.—A. Bennett.

Molinia depauperata, Lindl. Glen Cloy, Isle of Arran, August, 1887.—A. DAVIDSON. Probably will represent *depauperata*, but I have not seen an authentic specimen.—A. Bennett.

Poa pratensis, L., var. *sub-cærulea.* Askergill Links, Caithness, July 18th, 1887.—F. H. WARD. Yes.—A. Bennett.

P. glaucantha, Reichb. Near Sanquhar, Sept., 1887. (Seen previously by Mr. Bennett.)—A. DAVIDSON.

Festuca sylvatica, Vill. Scaur Glen, Dumfries, June, 1887. (Seen by Mr. Bennett.)—A. DAVIDSON.

F. loliacea Curtis (not *Huds.*, which is an error in the Lond. Cat.). Hackney Marshes, June, 1887.—R. PAULSON. Marsh near Lea Bridge, Essex, June, 1887.—J. T. POWELL. What is usually so labelled, I believe.—A. Bennett.

Agropyron ———. Southwold, Suffolk, July 5th, 1887.—J. VAUGHAN. The stouter plant under this label, with blunt glumes is *A. junceum*, Beauv. The more slender, with glumes more sharply pointed or awned, Mr. Bennett states to be *A. acutum*, auct. angl.—E. F. Linton.

Gymnogramme leptophylla, Desv. Jersey, May 31st, 1887.— M. DAWBER.

Ophioglossum polyphyllum, A. Br. L'Ancresse, Guernsey, June 14th, 1887.—M. DAWBER.

O. lusitanicum, L. South Cliffs, Guernsey, Jan. 18th, 1888.— M. DAWBER.

Equisetum pratense, Ehrh. Holm Woods, Sanquhar, Dumfries, May and July, 1887.—A. DAVIDSON. A few specimens with fruiting cones are very welcome.—E. F. L.

Ditto, Braemar, Aberdeen, August, 1887.—W. R. LINTON.

E. litorale, Kühl. Bisley Common, Surrey, June 17th, 1886. —W. R. LINTON.

CORRECTION.

In last Report, page 3, the 6th line from the bottom, for "*saxatilis*" read "*saxicolus*, P. J. Müll."—P. F. Lee.

Small parcels of the plants remaining from the distribution have been made up for non-contributing members, who can have them on application to the Secretary, A. R. Waller, Low Ousegate, York.

THE BRITISH LINNÆA,

for exchange of plants with Continental Clubs. Any one wishing to join may communicate with the Director, the Rev. W. R. Linton, Shirley Vicarage, Derby. Expenses shared proportionately.

THE

FIFTH ANNUAL REPORT

OF THE

WATSON

Botanical Exchange Club,

1888-1889.

Referees:—

PROF. BABINGTON, M.A., F.R.S., F.L.S., etc., Cambridge.
ARTHUR BENNETT, F.L.S., High Street, Croydon.

Hon. Treasurer:—

P. F. LEE, Phan. Sec. Bot. Sect., Yorks. Naturalists' Union,
West Park Villas, Dewsbury.

Hon. Secretary:—

A. R. WALLER, 19, William Terrace, Hermitage Road,
Green Lanes, London, N.

"Labor Omnia Vincit."

YORK:
WILLIAM SESSIONS, PRINTER, 15 & 16, LOW OUSEGATE.
1889.

REPORT FOR 1888—1889.

The number of specimens sent this year is slightly more than those reported for last year, being 3802 as against 3562. The number of members contributing is the same, viz., 26.

The majority of the specimens were carefully preserved and accurately labelled, and the parcels of some members were models of neatness and order. A few members, however, have yet much to learn in this direction, and do not realize how much labour their carelessness entails on the distributor.

Taken as a whole, the plants were below the average interest. A large supply of Channel Islands species is due to the energy of two or three members, but the interest in critical genera does not seem to be so well sustained as formerly. Brambles and Roses are drooping, Willows are worse, and Hawkweeds and Mints are barely represented. It behoves the members to look to this.

The Club is under great obligations to Professor Babington, and to Mr. Arthur Bennett, who have kindly looked over and commented upon a great number of plants submitted to them; and also, per favour of Mr. Bennett, to Mr. J. G. Baker and Dr. F. Buchanan White for examining various Roses and Willows.

The parcels received are here acknowledged, with the numbers reckoned as specimens:—

List of Parcels Received.

Mr. A. Bennett, F.L.S.	92
Miss M. Dawber	318
Rev. H. E. Fox, M.A.	180
Rev. J. D. Gray, M.A.	115
Mr. J. E. Griffith, F.L.S.	178
Mr. G. K. Gude	14
Miss D. M. Higgins	140
Mr. F. C. King	68
Rev. E. F. Linton, M.A.	321
Rev. W. R. Linton, M.A.	242
Mr. A. E. Lomax	146
Mrs. E. A. Lomax	89
Dr. Maclagan	21
Mr. G. E. Martindale	55
Mr. H. T. Mennell, F.L.S.	104
Rev. W. H. Painter	95
Mr. R. Paulson	55
Mr. J. T. Powell	123
Rev. H. P. Reader	18
Captain Stewart	286
Mr. H. S. Thompson	317
Mr. R. F. Towndrow	174
Rev. J. Vaughan, M.A.	121
Mr. A. R. Waller	22
Mr. F. H. Ward	487
Mr. C. Waterfall	21
	3802

H. E. FOX, Distributor for the year 1888-89.

Ranunculus fluitans, Lam., form. Brailsford, S. Derbyshire, Sept., 1888. — W. R. Linton. *R. penicillatus*, Hiern. — A. Bennett.

R. Drouetii, Godr., var. *Godronii*, Gren. Totternhoe, Bedford, May 25th, 1888.—Miss D. M. Higgins. May be correct but the material to decide a plant in such a critical genus is insufficient.—A. Bennett.

Cochlearia anglica, L., var. *Hortii*, Syme. Bromborough, Cheshire, August 26th, 1888.—A. E. Lomax. Correct, I believe; it matches specimens so marked by Dr. Syme.—A. Bennett.

Sisymbrium pannonicum, Jacq. Waste ground, Redland, Bristol, June, 1888.—H. S. Thompson. Certainly not *S. pannonicum*, much nearer *S. Columella*, but I think *S. Loeselii*.—A. Bennett.

Viola permixta, Jord. Park Road, Luton, Bedfordshire, May, 1888.—Miss D. M. Higgins. *V. sylvatica* f.—A. Bennett.

V. hirta, L., var. *calcarea*, Bab. Barton Hills, Bedford, April 26th, 1886.—Miss D. M. Higgins. Probably correct by the small flowers and spur, but specimens gathered in fruit are desirable for positive certainty with this plant.—A. Bennett.

Lepigonum salinum, Fr., var. *neglectum*, Kindb. In palude salino, Bromborough, Cheshire, Anglia, August 28th, 1887.—Legit A. E. Lomax. Seeds papillose, seems correct. — A. Bennett.

Rubus fissus, Lindl. Shirley, S. Derbyshire, July, 1887.—W. R. Linton. Yes.—C. C. Babington.

R. nitidus, W. and N., var. *hamulosus*, P. J. Müll. Wood, near Bidston, Cheshire, Sept., 1887.—A. E. Lomax. I think the *R. hamulosus* is distinct from *nitidus*.—C. C. Babington.

R. hemistemon, P. J. Müll. prope Simmonswood, Lancashire, Sept., 1887.—A. E. Lomax. Yes.—C. C. Babington.

R. pyramidalis, Kalt., *fide* Focke. Thorpe, Norfolk, E., Sept., 1888.—E. F. Linton. This is a glabrous state of *pyramidalis*, Kalt. It is the *heteroclitus* of Bloxam's "set," 1876: the true *heteroclitus* is one of the *suberecti*.—C. C. Babington.

R. rhombifolius, Weihe. Nayland, Suffolk, Aug., 1888.—J. D. Gray. I do not think *rhombifolius* but *pyramidalis*, Kalt., probably.

I am far from sure. Focke says, "petals finally pale red in *pyramidalis*." He does not give the colour of the stamens.—C. C. Babington.

R. Colemani, Blox. (so Focke suggests). Mousehold Heath, Norfolk, Sept., 1888.—E. F. Linton. This can hardly be the original *Colemani*, which is a very prickly plant, but I think it is the *Boreanus*, Gen., to which several plants doubtfully called *Colemani* by me ought also to go.—C. C. Babington.

R. carpinifolius, W. and N. In silva, Cheshire, Sept., 1886. —A. E. Lomax. Yes.—C. C. Babington.

R. Maassii, Focke. Snaresbrook, Epping Forest, Essex, Aug., 1888.—J. T. Powell. I believe this to be *Maassii*. But does not it and also *Münteri* (although with a sulcate stem) belong to *nemoralis*, Müll, published in 1858 (*Münteri* in 1859, *Maassii* in 1876)? I think so.—C. C. Babington.

R. Purchasii, Blox. Mousehold Heath, Norfolk, Sept., 1888. —E. F. Linton. *R. Purchasii* is the same as *R. Drejeri*, Jensen, of Denmark. Unfortunately Bloxam's name has never been published with a description and so must fall.—C. C. Babington.

R. Sprengelii, Weihe. In silva, Cheshire, Sept.. 1886.—A. E. Lomax. Yes.—C. C. Babington.

R. Bloxamii, Lees. Shirley, S. Derbyshire, Aug., 1888.—W. R. Linton. Yes.—C. C. Babington.

R. rosaceus, W. and N. Lark's Wood, Chingford, Essex, Aug., 1888.—R. Paulson. Yes.—C. C. Babington.

R. echinatus, Lindl. Near Wake Arms, Epping Forest, Aug., 1888.—R. Paulson. Yes.—C. C. Babington.

R. diversifolius, Lindl. Buckden, Hunts., Sept., 1885.—W. R. Linton. I think this is so.—C. C. Babington.

R. diversifolius, Lindl. Edgware, Middlesex, Sept., 1885.—W. R. Linton. *Balfourianus* apparently. It seems to be the *tenuiarmatus* (E. Lees!) (1852). It differs in some respects from *Balfourianus*.—C. C. Babington.

R. flexuosus, M. and L. Polstead, Suffolk, Aug., 1888.—J. D. Gray. Yes.—C. C. Babington.

R. flexuosus, M. and L. Near High Beech, Epping Forest, Aug., 1888.—R. Paulson. The large prickles seem to show that this is not *flexuosus* nor *pallidus* (the true plant). I think it is *foliosus*, as understood by me in my notes (No. 43).—C. C. Babington.

R. Bellardi, Weihe. Biddulph, Staffs., Oct., 1888.—W. H. Painter. *erythradenes* Müll. It resembles *pendulinus* in many respects.—C. C. Babington.

R. hirtus, W. and N. Copse by Mousehold Heath, Norfolk, Aug., 1888.—E. F. Linton. I think that this is *pendulinus*, Müll, which Mr. Gray has sent from Polstead, Suffolk.— C. C. Babington.

R. cæsius, L., var. *intermedius*, Bab. Beelby, Norfolk, Oct., 1888.—E. F. Linton. I have placed specimens like this to *cæsius-intermedius* perhaps erroneously, but I have not yet worked the difficult plants out.—C. C. Babington.

R. cæsius, L., var. *intermedius*, Bab. Harling to Larling, Norfolk, Oct., 1888.—E. F. Linton. This seems more like *ulmifolius*, that is *ligerinus*, but I remark as on the last.—C. C. Babington.

Rosa rubiginosa, L., var. *inodora*. Roadside near Croston, Lancashire, June, 1888.—F. C. King. Is, I think, a *tomentosa* form, not *inodora*, or *rubiginosa*.—J. G. Baker.

R. senticosa, Ach. Wiston, Suffolk, Sept., 1887.—J. D. Gray. A curious form. I have seen nothing quite like it before. It comes in between *frondosa* and *tomentella*.—J. G. Baker.

R. decipiens, Dum. Nayland, Suffolk, Sept., 1888.—J. D. Gray. Not *decipiens* as usually seen, which has short pedicels, round fruit, and small, doubly serrated leaflets.

Daucus gummifer, Lam. Torquay, S. Devon.—C. Waterfall. Is *Trinia vulgaris*, a curious but not uncharacteristic mistake.—A. Bennett.

Galium verum, L., var. *ochroleucum*, Syme. Malvern Link, Worcester, July 24th, 1888.—R. F. Towndrow. This seems very nearly the same as the Deal plant described by Syme in *English Botany*. I have seen the plant growing in its Deal habitat and it looks remarkably distinct.—A. Bennett.

G. sylvestre, Poll., var. *nitidulum*, Thuill. Derbyshire.—A. E. Lomax. Seems correct.—A. Bennett.

Arctium nemorosum, Lej. Woods, Brock, Lancs., July, 1888. —F. C. King. *A. minus*.—A. Bennett.

Lobelia urens, L. Among the plants distributed by the Club in 1886—87, I see by the Report of the Botanical Record Club was *Lobelia urens*, localised as for Vice County I., West Cornwall. I did not see, or hear of there being, such specimens sent out, or I should have expressed a doubt of its occurrence there.—Arthur Bennett.

Pyrola secunda, L. Westmoreland.—C. Waterfall. A new record.—A. Bennett.

Statice Limonium, L., var. ? Seashore, Knot End, Lancashire, Aug., 1883.—F. C. King. I do not see why this is not referable to the type. It is not the var. *pyramidalis* of Syme's *English Botany*.—A. Bennett.

Symphytum tuberosum, L. Gloucester.—H. S. Thompson. A new record, but for which vice-county, 34 or 33 ?—A. Bennett.

Myosotis Mittenii, Lond. Cat. Norfolk. Prof. Babington assented to my so naming this three or four years ago, for the Botanical Exchange Club.—E. F. Linton.

Veronica spicata, L. St. Vincent's Rocks, Bristol, June, 1888. —H. S. Thompson. Is *V. hybrida*, L. That is, it is not the restricted *spicata* of the eastern counties, a much smaller plant, and remaining so in my garden after four years' cultivation ; the tallest specimen in the wet summer of 1888 was only eight inches high, in that of 1887 only five inches. I have seen the Bristol plant eighteen inches high and proportionately robust ; while the Suffolk plant keeps to that peculiar habit of the heath land plants " of seeking the ground " if such a term is allowable.— A. Bennett.

Euphrasia gracilis, Fr. Near Penzance, July, 1888.—H. S. Thompson. Leaves are small, but I think correct.—A. Bennett.

Polygonum convolvulus, L., var. *pseudo-dumetorum*, H. C. Wats. —A. E. Lomax. This is not so characteristic of the likeness to true *dumetorum* as Mr. H. C. Watson's specimens, which might well be taken for the true plant, but Mr. Lomax's could hardly be.—A. Bennett.

P. arenastrum, Bor. Cultivated land, The Hague, Renishaw, near Chesterfield, Oct., 1888.—C. Waterfall.

P. maritimum, L. Near Penzance, Cornwall, July, 1888.—H. S. Thompson. *P. Raii.*—A. Bennett.

P. maculatum, Dyer and Trimen. Malvern Wells, Worcester, Ang. 8th, 1888.—R. F. Towndrow. To me a connecting link between this and *lapathifolium*,—the perianth is not sufficiently glandular, and the fruit is too long for *maculatum*; on the other hand, the ochrœei are ciliated, and the stem and peduncles glandular.—A. Bennett.

Daphne Mezereum, L. Hampshire. It is undoubtedly wild in this neighbourhood, and in fair abundance. I know four or five woods in which it grows. I have searched for it in vain on Selborne Hanger, where it used to grow in Gilbert White's time. Selborne is five miles from here.—J. Vaughan, Alton, Hants.

Mercurialis perennis, L. Hedge, Avenham, near Preston, Lancs. Note length of decumbent stem and time of flowering. Gathered in flower in Oct., and Nov., 1886, 1887 and 1888.—F. C. King.

Salix speciosa, Host ? fl. prope St. Neots, Beds.—E. F. Linton. *S. speciosa*, Host (=*S. alopecuroides*, Tausch) is a hybrid between *S. fragilis* and *S. triandra*, but in Mr. Linton's specimens I can see nothing but *S. triandra*. Mr Linton found, however, in 1883, in the same locality (though "Hunts." and not "Beds." is given as the county), a willow, specimens of which in some herbaria have been doubtfully referred to the male of *S. undulata*. These specimens have summer catkins—a phenomenon often seen in *S. triandra*—and in many ways resemble *S. undulata*, of which the male is unknown. Except in the abnormal flowering and smaller catkins they have also much resemblance to Wimmer's examples of *S. speciosa*, to which species I am still inclined to refer them. The 1888 specimens have certainly been taken from a different bush.—F. Buchanan White.

Salices fragilis and *viridis*. Malvern Link, etc., Worcestershire. I refer members to the excellent paper in the *Journal of Botany* for July last, by Dr. F. Buchanan White, to whom I am indebted for the identification of the specimens sent. All specimens previously sent out by me as *S. Russelliana* should be regarded as *S. viridis* in one or other of its forms.—R. F. Towndrow.

S. alba, L., var. New Pool, Malvern Wells, Worcestershire, May 28th and Sept. 4th, 1888. I send a further supply of this willow, as last year I failed to send mature leaves. Since labelling these specimens for the Club, I have received from Dr. F. Buchanan White an opinion upon the plant and he considers it "*S. viridis*, var. *albescens*, And., very near *alba*."—R. F. Towndrow.

S. alba, L., var. *vitellina*, L. Newland, Malvern, Worcestershire. I am sorry to be unable to furnish leaves to these specimens, the tree from which I gathered them was cut down before I made my second visit to the place.—R. F. Towndrow.

S. ferruginea, Forbes. Stagsden Bedfordshire.—W. R. Linton. *S. rugosa*, Leefe. Shirley, S. Derbyshire.—W. R. Linton. The hybrids which *S. viminalis* makes with the *Cinerascentes* (i.e. *S. Caprea*, *S. cinerea*, and *S. aurita*) are so variable and at the same time so closely related that it is almost if not quite impossible to say to what parentage some specimens should be referred. Therefore they must in the meantime be treated as Andersson has treated them, and considered as varieties of one species—*S. Smithiana*, Willd. The two plants mentioned above, though somewhat different, appear to be nearest to the var. *sericans* (*S. sericans*, Tausch). The Bedfordshire specimen bears no resemblance to *S. ferruginea*, And., Forbes, beyond being also a form of *S. Smithiana*.—F. Buchanan White.

Epipactis purpurata, Sm. Thedden, Hants., Aug., 1888.—Rev. J. Vaughan. I suppose these are meant to be the same as the *E. violacea*, Boreau (Durand-Duqesney of Syme in *English Botany*). Apparently they are so, as one of the specimens has the secondary bud showing the tufted root, but they are single stems only. Smith's plant has been declared a monstrosity. On this see Mr. Prior's notes in the *Journal of Botany*.—A. Bennett.

E. atro-rubens, Schultz. Settle, Yorks., July, 1888.—Rev. W. H. Painter. For some time I have felt that there must be two plants near Settle, or forms of one. An original specimen gathered by Tatham to me looks different from others gathered since, insomuch that Tatham's plant has a very unlike look to *latifolia*. These specimens and others I have seen look to me more like a small form of *latifolia*, others again seem to approach specimens named *media* by Prof. Babington. It is dangerous to say too much on dried specimens, but I have had no chance of seeing the plant in a living state.—A. Bennett.

Tulipa sylvestris, L. Hampshire. I believe this to be indigenous in the locality I found it; viz., an old chalk pit, far away from any houses, but not far from the high-road. I was told of the locality by an old botanist of 80 years, who thought it indigenous. It used to grow in White's park at Selborne, but no flowers have appeared for many years, though, I believe, a few leaves still come up. Prof. Bell, who afterwards occupied White's house, believed the plant to be really wild. He transplanted the last flower that showed itself into his garden.—J. Vaughan, Alton, Hants.

Potamogeton zosteræfolius, Schum. Fenny, Stratford, Bucks., July 23rd, 1883.—Miss D. M. Higgins. The true plant, with characteristic spikes and fruits.—A. Bennett.

Zannichellia pedunculata, Reichb. Canal, Bridgwater, July, 1888.—H. S. Thompson. I should name this *Z. gibberosa*, Reichb., or near it. *Z. pedunculata* has not only the individual fruits with pedicels, but a peduncle to the group of fruits, and the style is also longer than true *pedunculata*.—A. Bennett.

Carex paludosa, Good., var. *Kochiana*, Gaud. Brandon, Suffolk, June, 1887.—J. D. Gray. Not good.—A. Bennett.

Bromus mollis, L., var. *glabrescens*, Coss. Swansea, Glamorganshire, May, 1888.—W. R. Linton. Correct, I think.—A. Bennett.

Asplenium lanceolatum, Huds., var.? Granite Walls, near Penzance, July, 1888.—H. S. Thompson. Seems to be between the type and b. *obovatum*, G. and G.—A. Bennett.

Small parcels of the plants remaining from the distribution have been made up for non-contributing members, who can have them on application to the distributor, the Rev. H. E. Fox, M.A., Durham.

THE BRITISH LINNÆA,

for exchange of plants with Continental Clubs. Anyone wishing to join may communicate with the Director, the Rev. W. R. Linton, M.A., Shirley Vicarage, Derby. Expenses shared proportionately.

THE

SIXTH ANNUAL REPORT

OF THE

WATSON
Botanical Exchange Club,

1889-1890.

Referees :—

PROF. BABINGTON, M.A., F.R.S., F.L.S., etc., Cambridge.
ARTHUR BENNETT, F.L.S., High Street, Croydon.

Hon. Treasurer :—

P. F. LEE, Phan. Sec. Bot. Sect., Yorks. Naturalist[illegible] Union,
West Park Villas, Dewsbury.

Hon. Secretary :—

T. A. COTTON, F.L.S., F.Z.S., Ullswater, Green Lanes,
Finsbury Park, London, N.

"Labor Omnia Vincit."

YORK:
WILLIAM SESSIONS, PRINTER, 15 & 16, LOW OUSEGATE.
1890.

REPORT FOR 1889—1890.

The number of specimens received this year for distribution is, I regret to say, little more than half that of last year, being 1944 against 3802 and the number of members contributing has fallen from 26 to 21. I hope this falling off is due, less to a flagging interest in the members, than to the filling up of gaps in their collections and the list of desiderata being thereby curtailed.

There is a very marked difference in the care bestowed by members in pressing and preserving their specimens, and with some there is much room for improvement. I am glad to be able to send to all an example of what may be done with such refractory plants as the *Rubi*, those sent by Mr. J. T. Powell being models of neatness and worthy a place in anyone's cabinet.

It would very much facilitate the work of the distributor if the desiderata were marked in the catalogues with a little more care, and always with black ink, and each specimen sent should be on a separate sheet of paper with its accompanying label.

There are no *Batrachian Ranunculi* sent this year, very few *Hieracia*, two specimens of a *Potamogeton*, but few *Carices*, two species of *Chara*, and not a single fern. Some of the members however have evidently turned good attention to the *Rubi* and *Rosae* and to a lesser extent to the *Salices*.

I have submitted a specimen of every plant, with the exception of the *Rubi*, to Mr. A. Bennett together with the whole of the *Rosae*, and these latter have also been carefully examined by Mr. J. G. Baker of the Kew Herbarium. Professor Babington has also again gone over the whole of the *Rubi* and given his opinion upon them. It is difficult to express the obligation the Club is under to these gentlemen for their valuable assistance as Referees.

There are a few plants remaining over from the distribution, these may be obtained by non-contributing members on application to the Honorary Secretary.

The plants received are here acknowledged with the numbers reckoned as specimens :—

LIST OF PARCELS RECEIVED.

Mr. A. Bennett, F.L.S.	60
Mrs. C. Cotton	30
Miss M. Dawber	88
Mr. T. B. Flower	54
Rev. J. D. Gray, M.A.	111
Mr. J. E. Griffith, F.L.S.	62
Mr. G. K. Gude	32
Miss D. M. Higgins	41
Rev. E. F. Linton, M.A.	158
Rev. W. R Linton, M.A.	384
Mrs. E. A. Lomax	102
Mr. H. T. Mennell, F.L.S.	33
Rev. W. H. Painter	68
Mr. R. Paulson	13
Mr. J. T. Powell	122
Rev. H P. Reader	39
Capt. A. Steuart	50
Mr. H. S. Thompson	93
Mr R. F. Towndrow	43
Mr. F. H. Ward	273
Mr. C. Waterfall	88
	1944

FREDERIC H. WARD, Distributor for the year 1889-90.

Caltha radicans, Forster. Hort. Croydon, 1889. Root from Kew Gardens as the plant of Forster, but doubtful.—A. Bennett.

Nasturtium officinale, R. Br., var. *microphyllum* (Boenn.) Reichb. Dadnor, near Ross, June 15th, 1889.—M. Dawber. Agrees fairly well with the plant of Reichenbach.—Boenninghausen described it as a species.—A. Bennett.

Viola canina × *lactea* (*intermedia* H. C. Watson). Near Hedge Court, Surrey, by W. H. Beeby. Hort. Croydon, 1889.—Com. A. Bennett.

Arenaria laxa (Jord.)? Penpole Pt., Gloucester, May, 1889. —H. S. Thompson. *Tenuifolia*, type only.—A. Bennett.

Sagina apetala. Linn., var. *prostrata*, Bab. Gravel walks, Milverton, Warwickshire, August, 1889.—Eliz. Lomax. Yes.— A. Bennett.

Lepigonum Salinum, L. Eastbourne, June 1886 —Col. T. A. Cotton. Var. *neglectum* (Kindb.) —A. Bennett.

Hypericum linarifolium, Vahl. St. Catherine's, Jersey, August 24th, 1888.—M. Dawber. This is certainly not *linarifolium* but a *humifusum* form whether this is the plant Syme mentions (Eng. Bot., Vol. 2, page 156. 1864) as occurring in Jersey near Noirmont Point, " strangely intermediate between this species (*linarifolium*) and *H. humifusum*, some specimens approaching to the one and some to the other. Most of these forms are no doubt the *H. decumbens* of Petermann, which is *H. humifusum* with the margins of the sepals ciliated ; but some of the examples apear to be truly *linarifolium* but with decumbent stems." Miss Dawber's specimen is nearer *humifusum*, though it certainly has the aspect in part of the other. I have seen no specimen of the plant of Petermann so cannot say whether it would come under that.—A. Bennett. I sent eighteen specimens from the same locality, gathered on the same day, to the Club last year, as *H. linarifolium*, and as the name was not challenged in the Report I assumed it to be correct. Members have an opportunity this year of seeing authentic and beautiful specimens from Dartmoor, sent by Mrs. E. Lomax, and will therefore do wisely to rectify the error on the labels accompanying my specimens.—Frederic H. Ward.

Lotus corniculatus. The Warren, Folkestone, July, 1887. There seem to be two varieties here. If I am right in thinking so I should be glad to know what they are.—J. D. Gray. Forms only.—A. Bennett.

Vicia gracilis, Lois. Walton-on-the-Naze, Essex, July, 1889. —H. S. Thompson. Certainly not *gracilis.* Answers very well to Fries' description of his *V. tetrasperma* var. *tenuifolia* "Nov. Fl. Suec. ed. 1. p. 12. (1814)." Fries Nov. Fl. ed. 2. p. 231 ! (1828) ; except that Mr. Thompson's plant has the calyx rather hairy, whilst Fries says "*glabra*" but puts this only as a secondary character.—A. Bennett.

Rubus ——— ? Great Horkesley, Essex, September, 1889. I want to know the name of this *Rubus*, if it is interesting I can send the Club a supply next season.—J. D. Gray. This seems to me to be *R. pubescens* = my *thyrsoideus.*—C. C. Babington.

R. ramosus, Blox. Polstead, Suffolk, September, 1889. I hope to send a supply of this next season, I discovered the bush too late in the season to secure good specimens.—J. D. Gray. I think that this is *R. macrostemon*, F. My account of *R. ramosus* in notes of 1886 included these two as one plant, as I now think erroneously. I think also that Bloxam did so.—C. C. Babington.

R. mucronatus, Blox. Bournemouth, Hants., July, 1889.—J. D. Gray. *Mucronatus.*—C. C. Babington.

R. flexuosus, M. and L. Polstead, Suffolk, September, 1888. —J. D. Gray. *Flexuosus.*—C. C. Babington.

R. ——— ? Newboldii. Sergeants Hill, Wiston, Suffolk, September, 1888.—J. D. Gray. Not Newbouldii. I rather think that it is *R. tuberculatus*, Bab. which is almost certainly *R. scabrosus*, Müll. Mr. Gray should have gathered more specimens of a doubtful plant like this. We should also be glad of some information about the colours and proportions of the floral organs. The specimen is curious.—C. C. Babington.

R. Bloxamii, Lees. Near Groeston Station, Carnarvonshire, August, 1889. Confirmed by Dr. W. O. Focke. Bremen.—J. E. Griffith.

R. diversifolius, Lindl. Near Bryn Glas, Beaumaris, September, 1889. Confirmed by Dr. W. O. Focke.—J. E. Griffith.

R. macrothyrsos, J. Lange. Flor. Dan. tab. 2832 a species intermediate between *R. vestitus* and *R. Lejeunii*. Near Bangor, August, 1889. Confirmed by Dr. W. O. Focke.—J. E. Griffith.

R. fissus, Lindl. Shirley, S. Derbyshire, July 2nd, 1889.—W. R. Linton.

R. carpinifolius, W. and N. Bradley, S. Derbyshire, August, 1889. Agrees with a plant from Shirley which was so named by Dr. Focke.—W. R. Linton. Does not accord with my idea of *R. carpinifolius*. Almost exactly the same as a plant gathered by Dr. De Crespigny at Hayes Common in Kent. Is it not the plant named "*R. Münteri* correct" from Bradley and "*R. Münteri formâ valde aculeatâ*."

R. pubescens, W. and N. fide Dr. Focke. Geldersley, S. Derbyshire, August 13th, 1888. This very pronounced and definite plant was so named by Dr. Focke. But the Rev. W. H. Painter who has inspected it growing has raised the question whether it really is identical with the plant formerly called *thyrsoideus* in England and more recently *pubescens*. The plant as it occurrs commonly in this neighbourhood is, if it be not *pubescens*, altogether distinct from any other of the same group, and possibly may turn out something new.—Wm. R. Linton. I am glad to see this *pubescens* named by Focke. I need not add that it is what we have been accustomed to call *R. thyrsoideus* erroneously.—C. C. Babington.

R. macrocanthus, Blox. Stydd, S. Derbyshire, August, 1889. A plant placed by Professor Babington under *thyrsoideus* but appearing to me to be nearer to *rusticanus*. The credit of its discovery for S. Derbyshire and of its identification belongs to my brother, E. F. Linton. Plentiful at Stydd, and elsewhere in S. Derbyshire.—Wm. R. Linton. I should call this a form of

R. rusticanus = my *discolor*. What was the colour of the petals? Judging from specimens I do not think that it is the *R. macroacanthus* of Bloxam or of Baker.—C. C. Babington.

R. calvatus, Blox. Bradley, S. Derbyshire, August, 1889. This plant is frequent in S. Derbyshire; it is definite in habit and appearance. I think it is a Midland type, and am inclined to question the identity with it of many plants so named from more southern and eastern counties.—Wm. R. Linton. Yes.—C. C. Babington.

R. Sprengelii, Weihe. Epping Forest, Essex, October 4th, 1883.—Wm. R. Linton. That is to say var. *R. Borreri*.—C. C. Babington.

R. Hystrix, Weihe. Yeldersley, S. Derbyshire, August 21st, 1889. Agrees with a plant from Shirley which was so named by Dr. Focke.—Wm. R. Linton. Yes.—C. C. Babington.

R. ——— (? *Scaber*). Hadley, Middlesex, October 4th, 1884.—Wm. R. Linton. I think that this is *R. præruptorum*.—C. C. Babington.

R. diversifolius, Lindl. Buckden, Hants., September 1st, 1883.—Wm. R. Linton. *Diversifolius*.—C. C. Babington.

R. ———. Shirley, S. Derbyshire, July 19th, 1887. Dr. Focke said of this plant "with us in Germany it would be named *R. oreogeton*, Focke." It appears to me to be near *diversifolius*, yet distinct.—Wm. R. Linton. I have not seen Focke's *oreogeton*. Being Silesian it may be doubted, the specimens correspond well with the imperfect description in his book, p. 404.—C. C. Babington.

R. affinis, W. and N. var. *cordifolius* (W. and N.). Rudyard Reservoir, Staffordshire, 600 ft., August 27th, 1889.—W. H. Painter. *Lentiginosus*.—C. C. Babington.

R. villicaulis, Koehl. Near Biddulph Hall, N. Staffordshire, 600 ft., August 20th, 1889. Dr. Focke remarks upon this "the same as named '*calvatus*' by Mr. Bloxam."—W. H. Painter. This is a plant about which I have had much doubt, but I still say "I think a form of *R. villicaulis*" and am glad to see that Focke says so.—C. C. Babington.

R. Maasii, Focke = *R. nemoralis*, Müll. High Beech, Essex, August 1st, 1889.—fide Professor Babington, 1888. J. T. Powell.

R. Sprengelii, Weihe. Snaresbrook, Essex, July 22nd, 1889.—J. T. Powell. That is *Borreri*.—C. C. Babington.

R. echinatus, Lindl. Bushy Plain, Walthamstow, Essex, August 19th, 1889.—J. T. Powell. Yes.—C. C. Babington.

R. flexuosus, M. and L. Epping Road, near "Robin Hood," Essex, August 15th, 1889.—J. T. Powell. Yes.—C. C. Babington.

R. cordifolius, W. and N. Oakhill, near Hale End, Essex, August 19th, 1889.—J. T. Powell. Is it not very near the *carpinifolius* of Bloxam ? which goes I think to *nemoralis*.—C. C. Babington.

R. plinthostylus, Gen. Hawkwood, Chingford, Essex, August 15th, 1889. Named by Professor Babington, 1888.

R. No. 1. ? *macrophyllus*, W. and N. High Beech, Essex, August 9th, 1889.—J. T. Powell. *R. No.* 2. High Beech, Essex, August 15th, 1889.—J. T. Powell. I think I must place both of these with *rosaceus* and *Hystrix* for the present at any rate. These two form one variable species.—C. C. Babington.

R. No. 3, *pubescens*, W. and N. High Beech (between the church and Paul's nursery), Essex, August 9th, 1889.—J. T. Powell. Probably, but with a broader panicle than usual.—C. C. Babington.

R. No. 4, near *nemoralis*, Müll. Near Wake Arms, Essex, August, 13th, 1889.—J. T. Powell. I think this is a small form of *amplificatus*.—C. C. Babington.

R. No. 5, *villicaulis*, Focke. High Beech, Essex, August 13th, 1889.—J. T. Powell. *R. hamulosus*, L. and M.—C. C. Babington.

R. No. 6, *diversifolius*. Near "Rising Sun," Walthamstow, Essex, July 30th, 1889.—J. T. Powell. I think that this will prove to be *emersistylus* = *Briggsii*, but it is not quite like my specimens.—C. C. Babington.

R. No. 7. Snaresbrook, Essex, July 24th, 1889. This form is not at all uncommon about Snaresbrook. The fruit is very imperfect often only 2 or 3 small drupels. I am not at all certain where to refer it.—J. T. Powell. I think *R. sertiflorus*, Müll.—C. C. Babington.

R. No. 8, *hirtus*, W. and N. Leppitts Hill, near Chingford, August 1st and 6th, 1889.—J. T. Powell. I think *saxicolus* = *humifusus* of Bab., exceedingly fine.—C. C. Babington.

R. No. 9, *hirtus*. Near Mr. Baring's house, High Beech, Essex, August 6th, 1889.—J. T. Powell. It seems possible that these are *Kattenbachii*.—C. C. Babington.

R. No. 10, near *hirtus*, W. and N. Churchyard, High Beech, Essex, August 13th, 1889. I am very doubtful about this which looks very different when growing from the Leppitts Hill specimens.—J. T. Powell. I do not see how to separate this from the Leppitts Hill plant of last year. I fear it must go to *R. saxicolus*, although looking different at first from the beautiful panicled fruit from the same place now sent.—C. C. Babington.

R. cordifolius, W. and N.? Peat moors, Shapwick, Somerset, August, 1889.—H. S. Thompson. Apparently a form of *R. rhamnifolius*, not the typical plant, nor is it the *R. cordifolius* of Focke.—C. C. Babington.

R. ———. Quantock Hills, Somerset, August, 1889.—H. S. Thompson. I suppose that this is *R. latifolius*.—C. C. Babington.

R. ———. Cockercombe, W. Somerset, September, 1889. —H. S. Thompson. I presume that this is *R. latifolius*.—C. C. Babington. Hawkridge Water, W. Somerset. I presume these Hawkridge plants are *R. latifolius*. There is much confusion here.—C. C. Babington.

R. ———, Hawk. A form of *R. rusticanus*, the *R. abruptus* of Lindley. There is no label.—C. C. Babington.

R. ———. Quantock Hills, Somerset, September, 1889.—H. S. Thompson. I cannot distinguish this from *R. vestitus* which I believe to be the typical plant of which the *R. leucostachys* of Borrer is a form.—C. C. Babington.

R. ———. Quantock Hills, Somerset, September, 1889.—H. S. Thompson. Very near to *podophyllus* but not just the same, the terminal leaflet is more obovate, the setæ on the panicle very few. The setæ and aciculi on the calyx are very few. I think it must go with *R. podophyllus*, and probably both are extreme forms of *R. carpinifolius*.—C. C. Babington.

R. ———. Quantock Hills, Somerset, August, 1889.—H. S. Thompson. This seems to be *R. Sprengelii*.—C. C. Babington.

R. Balfourianus, Blox. Quantock Hills, Somerset, September, 1889.—H. S. Thompson. I think this may pass as *R. Balfourianus* for the present, but the name may possibly not stand for this form.—C. C. Babington.

R. ———. Bridgwater, Somerset, August, 1889.—H. S. Thompson. *R. deltoideus*, Müll. My *althæifolius*.—C. C. Babington.

R. ———. Boroughbridge, Somerset, September, 1889.—H. S. Thompson. I think that there is some confusion here. I do not attempt to name it.—C. C. Babington.

R. ———. Quantock Hills, Somerset, September, 1889.—H. S. Thompson. It is a great pity that there are no real leaves here. The panicles are beautiful.—C. C. Babington.

R. ———. Peat moors, Shapwick, Somerset, August 1889. —H. S. Thompson. This plant I cannot name. I think that I have seen it, but do not know what it is. It seems very near to *Newbouldii*. Its stem is much more hairy, and it has much more of a *Koehlerian* appearance. There is not material enough, and we want to know so many characters to determine it with any satisfaction. I consider it very interesting. It is much to be desired that members would carefully study their plants when fresh, and give as good names to them as they can, noting the colours and proportions of the floral organs. This would be of great value to them, as being scientific work, and save the distributors very much time and trouble. I have hardly time to go through this lot of unnamed *Rubi* with the requisite care.—C. C. Babington.

Rosa canina, var. *decipiens* (Dum.). Nayland, Suffolk, June and September, 1889.—J. D. Gray. Flowering and fruiting stems certainly different, the former an *arvensis* form.—J. G. Baker.

R. arvensis, L., var. *gallicoides*, Déségl. Yeavely, Derbyshire, August 7th, 1889. This very interesting *arvensis* variety grows strongly developed and in some quantity along one hedge, and as the Rev. W. R. Linton informs me in a less pronounced form in some other spots in the neighbourhood.—E. F. Linton. An *arvensis* form.—J. G. Baker.

R. tomentosa, Sm., var. ———. Near Clifton, S. Derbyshire, September 25th, 1888.—Wm. R. Linton. Var. *subglobosa*.—J. G. Baker.

R. tomentosa, var. *scabriuscula* (Sm.). Shirley, S. Derbyshire, August 24th, 1887. So named by Messrs. Baker and Crépin. Yes.—J. G. Baker.

R. ———. Ashbourne, S. Derbyshire, September 17th, 1888. "Between *frondosa* and *coriifolia*."—J. G. Baker. Referred to *implexa* by the Rev. Mofe Rogers and to *lutetiana* by M. Crépin.—Wm. R. Linton. var. *sphærica* (Gren.).—J. G. Baker.

R. canina, var. *obtusifolia* (Desv.). Braemar, S. Aberdeenshire, August, 1887.—Wm. R. Linton. *obtusifolia* passing into *tomentella*.—J. G. Baker.

R. canina, var. *collina* (Jacq.). Bradley, S. Derbyshire, July 15th, 1887.—Wm. R. Linton. Exactly. *Koscinciana*.—J. G. Baker.

R. canina, var. *Koscinciana* (Besser.). Shirley, S. Derbyshire, July, 1887. See Watson Report for 1887 where the name was assigned by Messrs. A. Bennett and J. G. Baker.—Wm. R. Linton. Yes.—J. G. Baker.

R. canina, var. *collina* (Jacq.). Shirley, S. Derbyshire, August

31st, 1888.—Wm. R. Linton. Under var. *verticillacantha* (Mérat.).—J. G. Baker.

R. glauca (Vill.). Berriedale, Caithness, July 20th, 1888.—Wm. R. Linton. May be *Reuteri*.—J. G. Baker.

R. coriifolia (Fr.). Atlow, S. Derbyshire, September 13th, 1887.—Wm. R. Linton. Yes. J. G. Baker.

R. canina, var. *Borreri* (Woods.). Offord, Hunts., August 27th, 1884. Name agreed to by Mr. A. Bennett.—Wm. R. Linton. Yes.—J. G. Baker.

R. tomentosa, var. *cuspidatoides*. Horton, September 2nd, 1889.—W. H. Painter. Near *subglobosa* (Sm.).—J. G. Baker.

Epilobium montanum, Linn., var. *verticillatum*, Koch. Garden weed, Malvern Link, Worcestershire, July 17th, 1889. This variety (or rather form) having the leaves in threes, occurred in an unusual quantity in an uncultivated garden. With it were also plants with alternate leaves, and one root showed examples of stems respectively bearing leaves singly, in two, and in threes.—R. F. Towndrow.

Epilobium Lamyi, Wirtg. Malvern, Worcestershire, July 17th and September 26th, 1889. The specimens bearing rosettes are those gathered at the later date. It is necessary to see the plant in this state to determine it with satisfaction.—R. F. Towndrow.

Astrantia major, Linn. Woods near Craven Arms, Shropshire, July 6th, 1889.—M. Dawber.

Valeriana officinalis, Linn., var. *sambucifolia*, Auct. Angl. New Forest, Hants., July, 1889.—J. D. Gray. Yes.—A. Bennett.

Valerianella olitoria, Moench. Pubescent fruit, corn fields, Mapledurham, Oxon., September, 1889.—H. P. Reader. Var. *lasiocarpa*, Koch.—A. Bennett.

Anthemis arvensis, Linn. Bradley, S. Derbyshire, June, 1889. On arable land. New record for the South division of the County.—Wm. R. Linton.

Crepis taraxacifolia, Thuill. Yeldersley, S. Derbyshire, June, 1889. On arable land. New record for the County.—Wm. R. Linton.

Crepis nicæensis, Balb. Yeldersley, S. Derbyshire, July, 1889. Mr. A. Bennett concurred in my opinion that the plant sent should bear this name. Not recorded for the County previously.—Wm. R. Linton.

Hieracium pallidum, var. *Schmidtii*, Tausch. Bettyhill, Sutherland, July 30th, 1888. Styles yellowish, dull.—E. F. Linton.

Hieracium? This plant is abundant on the banks of the Avon (Clifton).—J. D. Gray. *H. vulgatum* Fr. *forma*. I cannot say anything more definite at present.—F. J. Hanbury.

Statice Limonium, Linn., var. Dawlish Warren, S. Devon, August, 1889.—T. B. Flower. Certainly is *S. binervosa*, Sm., var. *intermedia*, Syme.—A. Bennett.

Erythræa centaurium, nana contracte. Near Helston, Cornwall, July, 1888.—H. S. Thompson. Is *Erythræa centaurium*, var. *pseudo-latifolia f. nana.*—A. Bennett.

Solanum Dulcamara, var. *marinum*, Bab. Frinton to Clacton-on-Sea, Essex, September, 1889.—J. D. Gray. Yes.—A. Bennett.

Rhinanthus Crista-galli, Linn., var. *Drummond Hayi*, F. B. White. Clova, Forfar, July, 1889. This variety was plentiful in the Clova district, especially on mountains: the valley scarcely produced it. It invariably in my experience occurred with the type.—Wm. R. Linton.

Orobanche major, Linn. Bangor, July 5th, 1889. Growing upon *Ulex europæus.*—W. H. Painter.

Mentha viridis, Linn. Established in damp bushy places, Woodchester, Gloucestershire, W., August, 1889.—H. P. Reader. Yes.—A. Bennett.

Mentha sativa, Linn., forma. Near Hamworthy, Dorset, August 26th, 1889.—E. F. Linton. Certainly a *sativa* form.—A. Bennett.

Mentha ———. With *hirsuta* and *sativa* in wet places. Woodchester, Gloucestershire, W., August, 1889.—H. P. Reader. Of British named forms this comes nearest to *M. sativa*, var. *paludosa* (Sole) Baker, J. of Botany, 1865, p. 247, but differs in being much more hairy, the leaves much more like *hirsuta.* It bears some resemblance to *M. Hybrida*, F. Aresch., but that is more like normal *sativa*, L. I see no reason to doubt that it may be a hybrid between *hirsuta* and *sativa*, var. *paludosa.* Dr. Focke does not record such a hybrid in his "Pflauzen-mischlinge," 1881. In some respects it answers to the description of *sativa*, var. *lanata*, Sonder, Fl. Hamburgh, p. 321 (1851), but I have seen no specimen of that form. Mr. Reader's specimen seems to agree in some points with the three forms described by Opiz as *M. obtusata*, Opiz Naturalientausch, p. 194.

M. cinerea. Seyn., p. 64, and M. Wiedenhofferi Bot. Zeit., 1829, p. 115., so fully commented on by M. Déséglise in his Menthæ Opizianæ: but without authentic specimens it is impossible to refer this British plant to either.—A. Bennett.

Plantago major, Linn., var. *intermedia* (Gilib.). Shirley, S. Derbyshire, September 13th, 1889. Seen also at Rodsley, and no doubt common on arable land. Not previously recorded for the county.—Wm. R. Linton.

Amaranthus Blitum, Linn. Stoke-by-Nayland, Suffolk, September, 1889.—J. D. Gray. Not the same as *A. retroflexus.*—A. Bennett.

Atriplex ———. Near Hamworthy, Dorset, August 26th, 1889.—Rev. E. F. Linton.

A. hastata, Linn. *A. deltoidea*, Bab., is a sub-species of this with thickened contiguous spikes —A. Bennett.

Polygonum ———. Sandy ground, Bridgwater, Somerset.—H. S. Thompson. *P. aviculare*, var., *arenastrum* (Bor.).—A. Bennett.

P. aviculare, var. *rurivagum*. Renishaw, near Chesterfield.—C. Waterfall. Var. *vulgatum*, Syme.—A. Bennett.

Urtica holosericea, Fr. Polstead, Suffolk, September, 1889. Approaches *U. microphylla*, Ham., to some slight extent.—J. D. Gray.

Salix alba, Linn., var. ———. Buckden, Hunts., September, 1883, and April, 1884. The long scales of the catkins are a noticeable point.—Wm. R. Linton. Or hybrid?—A. Bennett.

S. rubra, Huds., var. *Forbyana* (Sen.). Dovedale, S. Derbyshire, May and June, 1888.—W. R. Linton. Certainly a *rubra* form, but does not agree with the plant received from Borrer in Leefe's exsiccata. It comes very near a plant gathered by Mr. Linton, "between Kew and Richmond," which is marked by Dr. White "*rubra f*," but it is not *Forbyana*. This plant has the capsules longer than in any form of *rubra* I have seen —A. Bennett.

S. Smithiana, Willd. Shirley, S. Derbyshire, April and July, 1888. This plant occurs in several places in the neighbourhood. and appears to be the most usual form which this hybrid takes I should say it is not naturally produced here, as I have seen only planted *viminalis*, and that in only one or two places.—Wm. R. Linton. Agrees fairly well with *Smithiana*, but the catkins are very young for determination.—A. Bennett.

S. aurita, Linn., *gynandrous*. Shirley, S. Derbyshire, May, 1888. This plant varied curiously; a very few catkins were male, most were wizened female; some imperfect capsules bore stamens at the summit.—Wm. R. Linton.

Empetrum nigrum, Linn. In flower, Ilkley, Yorkshire. I venture to send these as many of our members may, like myself, rarely have had the opportunity of gathering the plant in flower. —H. T. Mennell.

Juncus diffusus, Hoppe. Kniveston, S. Derbyshire, August 7th, 1889. Specimens of this Kniveston plant were submitted by the Rev. W. H. Painter to Mr. J. G. Baker, and referred by him to *J. glaucus*. I therefore send some in that the correct name may be confirmed.—Wm. R. Linton.

Naias marina, Linn. Norfolk, September 23rd, 1889.—T. A. and C. Cotton. Beautifully dried specimens in fruit.—F. H. Ward.

Carex ———. Penpole Point, Gloucestershire, May, 1889.

—H. S Thompson. *C. pulicaris* as it is young before fruit is reflexed.—A. Bennett.

C. vulpina × *divulsa*. Newland, Malvern, Worcestershire, July 18th, 1889.—R. F. Towndrow. It is not easy to regard this plant as other than a hybrid. I find I have specimens (but in a much earlier state) gathered in 1885, and these I had marked "a hybrid." I possess no European specimen that matches Mr. Towndrow's plant. Seemingly a similar plant was seen by Prof. Babington. Ex Club Report, 1885, p. 138, who there says "This seems to have the nut of *divulsa*, to which I should place it.', In the Record Club Report, 1884, 5, 6, p. 134, Dr. Lees notices a *Carex* seemingly from the same station, gathered by Mr. Matthews, which "was sterile." "I see no reason to doubt the substantial hybridity." The specimen from Mr. Towndrow has well formed nuts though not mature, these are not exactly those of *vulpina* or *divulsa*, they differ from *vulpina* by being broader, and the apex much stouter; from *divulsa* in being flatter, more tapered at the base, and also at the apex, the foliage is decidedly more gross than *divulsa*, more like that of *muricata*.—A. Bennett.

C. paludosa, Good, var. *Kochiana*, Gand. Marsh near Walthamstow, Essex, June, 1889.—R. Paulson. May pass for it, but not good.—A. Bennett.

Polypogon littoralis, Sm On sand, Littlesea, Dorset, August 27th, 1889. I cannot find that this is anything else, yet it is a surprise in this condition.—A. Bennett.

Poa compressa, Linn., var. *polynoda* (Parn.). Brailsford, S. Derbyshire, June 17th, 1889.—W. R. Linton. Seems correct.—A. Bennett.

P. trivialis, Linn. Yeldersley, S. Derbyshire, June 14th, 1889. A few flowered form, perhaps accounted for by its being produced on rather dry arable land.—Wm. R. Linton.

Lolium perenne, Linn., var. Bournemouth, Hants., July 2nd, 1889.—E. F. Linton Var. *multiflorum*, Sonder, Fl. Hamburg, p. 76, 1851.—A. Bennett.

Agropyron caninum, Linn., var. ————. Longford, S. Derbyshire, August 6th, 1889. From a shady copse and growing in deep shade. Mr. A. Bennett considered this to be a form of *caninum*.—Wm. R. Linton. A depauperate form only I think. —A. Bennett.

A. ————. Longford, S. Derbyshire, August 6th, 1889. From a shady copse. Is this awned *repens* or creeping *caninum*? —Wm. R. Linton, *Repens*, Beauv., var. *barbata*, Duval-Jouve. —A. Bennett.

Lepturus incurvatus (Trin.).—H. S. Thompson. *Filiformis* only.—A. Bennett.

THE

WATSON

Botanical Exchange Club.

LIST OF DESIDERATA

For 1890.

Modifications of the List will be found on page 2.

Changes in the List of Members will be found on Page 11.

Hon. Secretary:
T. A. COTTON, F.L.S., F.Z.S., Ullswater, Green Lanes,
Finsbury Park, London, N.

YORK:
William Sessions, Printer, 15 & 16, Low Ousegate.
1890.

LIST OF DESIDERATA,

1890.

The following plants, though included on pp. 4 to 9, will *not* be required for the next exchange, except from new localities.

Papaver hispidum
Reseda alba
Viola intermedia
Hypericum linarifolium
Geranium prostratum
Trifolium glomeratum
Astragalus alpinus
Rubus fissus
,, villicaulis
,, Maasii
,, Borreri
,, Bloxamii
,, saxicolus
Epilobium Lamyi
Astrantia major
Tordylium maximum
Gnaphalium luteo album
Crepis fœtida
,, nicæensis
Hieracium Peleterianum
,, Anglicum
,, Gibsoni
Lobelia urens
Statice intermedia
Primula vulgaris, vars.
Cicendia pusilla
Pulmonaria angustifolia
Mentha rubra
Plantago intermedia
,, arenaria
Chenopodium ficifolium
Atriplex hastata
Salix daphnoides
,, Smithiana
Orchis purpurea
Ophrys aranifera
Crocus vernus
Gladiolus illyricus
Narcissus biflorus
Juncus diffusus
Zannichellia pedunculata
Naias marina
Scirpus Holoschœnus
Carex bracteata
Avena fatua, vars.
Bromus madritensis, vars.
,, arvensis
Equisetum litorale

RULES.

1. The objects of the Watson Botanical Exchange Club are to promote more intercourse between British botanists, and to study, as much as possible, British plants belonging to critical genera.

2. The subscription is 5s. a year, and is due on Jan. 1st.

3. *a.* Members may send to the Distributor for the time being, before January 31st, each year, parcels of plants for distribution, and they will receive in return plants in proportion to the number and quality of those sent.

b. Each plant must bear a label giving the name, place where collected, collector's name, and date. To prevent possible confusion, it would be better, in the case of Rosæ, Salices, etc., to *affix* the label to the plant.

c. *Several* specimens of each plant should be sent. Single specimens are of very little use.

d. It is particularly requested that *good* specimens should be sent. *Scraps are not of the slightest use.*

e. No plants must be sent which are not included in the List of Desiderata for the current year, unless new to the County or Vice-County in which gathered.

f. Each member must let the Distributor have a London Catalogue of British Plants with a horizontal stroke (thus—) before each of his desiderata; which may be cancelled by a perpendicular stroke (thus +) when the plant is no longer wanted. These Catalogues should accompany the parcels. They will be returned in the return parcels. No MS. lists to be sent.

g. The plants in the parcels should be arranged in the order in which they are printed in the 8th ed. of the London Catalogue. Specimens of the same species should be put on separate sheets in one cover, with the name of the genus and species, and its number in the London Catalogue, written on the outside of the cover. These covers should all be of uniform size.

4. Members will very much increase the scope and work of the club if they will send for examination any Batrachian Ranunculi, Rosæ, Rubi, Callitriche, Hieracia, Menthæ, Salices, Naiadaceæ, Junci, Carices, Characeæ, &c.,—the study of critical species being one of the principal aims of the club. One specimen of each will be returned to the owner after examination.

In the case of Hieracia the colour of the styles should always be stated on the label.

The following quotation from Prof. Babington's "British Rubi" will show what a perfectly diagnosable specimen of a fruticose Rubus should consist of.—"To judge properly of a bramble from a preserved specimen we require a piece of the middle of the stem with more than one leaf; the base and tip of the stem are also desirable. Likewise a piece of the old stem with the flowering shoot attached to it; the panicle with flowers, and the fruit. We likewise want to know the direction of the stem throughout, of the leaflets, and of the calyx; also the shape of the petals and the colour of the styles; a note of these should be made when the specimen is gathered."

LIST OF DESIDERATA.

- Thalictrum Kochii
  - riparium
  - nigricans
- Anemone ranunculoides
  - apennina
- Ranunculus Bachii
  - submersus
  - Godronii
  - confervoides
  - penicillatus
  - confusus
  - marinus
  - tripartitus
  - omiophyllus
  - ophioglossifolius
  - acris, *vars.*
  - parvulus
  - europæa
  - incumbens
- Caltha Guerangerii
  - minor
  - radicans
- Delphinium Ajacis
- Pæonia corallina
- Epimedium alpinum
- Nymphæa minor
- Papaver somniferum, *vars.*
- Glaucium phœniceum
- Rœmeria hybrida
- Chelidonium laciniatum
- Corydalis bulbosa
- Fumaria densiflora
- Mathiola incana
- Nasturtium siifolium
  - microphyllum
- Barbarea arcuata
- Arabis hispida, DC.
  - stricta
  - ciliata
  - hispida, Syme.
  - alpina
  - glabrata
  - Turrita
- Cardamine dentata
  - Hayneana
- Alyssum incanum
- Draba confusa
  - rupestris
- Erophila præcox
  - inflata
- Cochlearia Hortii
- Sisymbrium polyceratium
  - pannonicum
- Sisymbrium Irio
- Erysimum orientale
- Camelina sativa
  - fœtida
- Brassica Napus
  - Rutabaga
  - Rapa, *vars.*
  - adpressa
  - Erucastrum
- Lepidium alatostyla
- Thlaspi perfoliatum
- Isatis tinctoria
- Cakile integrifolia
- Reseda alba
- Helianthemum Breweri
- Viola permixta
  - sepincola
  - hirta, *vars.*
  - arenaria
  - lactea
  - intermedia
  - persicæfolia
- Polygala grandiflora
  - ciliata
  - amara, *and vars.*
- Frankenia pulverulenta
- Dianthus glaucus
  - cæsius
  - plumarius
  - Caryophyllus
  - prolifer
- Saponaria Vaccaria
- Silene Armeria
  - rosea
  - ang. × quinquevulnera
  - italica
- Holosteum umbellatum
- Cerastium pumilum
  - apetalum
  - triviale, *vars.*
  - Edmonstoni
  - arcticum
  - Andrewsii
  - trigynum
- Stellaria umbrosa
- Arenaria Gerardi
  - sulcata
  - uliginosa
  - tenuifolia, *vars.*
  - glutinosa
  - ciliata
  - norvegica
- Sagina maritima, *vars.*
- Sagina prostrata
  - spinosa
  - nivalis
- Spergula sativa
- Lepigonum salinum, *vars.*
  - glabrescens
- Hypericum angustifolium
  - maculatum
  - undulatum
  - decumbens
  - linariifolium
- Althæa hirsuta
- Lavatera sylvestris
- Malva verticillata
  - borealis
  - parviflora
- Linum crepitans
- Geranium sanguineum, *vars.*
  - nodosum
  - Raii
  - modestum
- Oxalis stricta
- Acer hebecarpum
- Genista pilosa
  - humifusa
- Ulex strictus
- Cytisus prostratus
- Ononis horrida
  - mitis
- Medicago sylvestris
  - apiculata
  - lappacea
- Melilotus parviflora
- Trifolium pratense, *vars.*
  - Molinerii
  - stellatum
  - Bocconi
  - erectum
  - glomeratum
  - strictum
  - elegans
  - Townsendii
  - resupinatum
  - agrarium
- Lotus corniculatus, *vars.*
  - angustissimus
  - Seringianus
- Astragalus alpinus
- Oxytropis campestris
- Coronilla varia
- Vicia gracilis
  - lævigata
  - hybrida

- Vicia bithynica, *vars.*
- Lathyrus Aphaca
  - hirsutus
  - sphæricus
  - latifolius
  - tuberosus
  - maritimus
  - acutifolius
  - tenuifolius
  - niger
- Prunus fruticans
  - domestica
- Spiræa denudata
- Rubus, any *except*
  - Idæus
  - plicatus
  - affinis
  - Lindleianus
  - rhamnifolius
  - incurvatus
  - rusticanus
  - leucostachys
  - macrophyllus
  - Radula
  - Koehleri
  - pallidus, *Bab.*
  - longithyrsiger
  - corylifolius
  - sublustris
  - conjungens
  - cæsius
  - umbrosus
  - saxatilis
  - chamæmorus
- Dryas pilosa
- Potentilla hirta
  - rupestris (*sponte*)
  - Sibbaldi
- Alchemilla montana
  - conjuncta
- Rosa Ripartii
  - involuta, *vars.*
  - hibernica *and vars.*
  - pseudo-rubiginosa
  - tomentosa, *vars. exc. b.*
  - rubiginosa, *vars.*
  - micrantha, *vars.*
  - agrestis, *vars.*
  - canina, *any vars. except*
    - lutetiana
    - sphærica
    - dumalis
    - biserrata
    - urbica
    - frondosa
    - tomentella
    - subcristata
    - coriifolia
    - marginata
- Rosa stylosa *and vars.*
  - Briggsii
  - rubella
  - pomifera
  - gallica
  - lucida
  - cinnamomea
  - Dicksoni
  - sempervirens
- Pyrus rupicola
  - latifolia
  - scandica
  - hybrida
  - domestica
  - communis, *vars.*
  - Malus, ,,
- Cratægus Oxyacantha, *vars.*
- Saxifraga Geum, *vars.*
  - hirsuta
  - umbrosa, *vars.*
  - Hirculus
  - cæspitosa
  - Sternbergii
  - decipiens
  - sponhemica
- Ribes Uva-crispa
  - petræum
  - spicatum
- Tillæa muscosa
- Sedum Fabaria
  - album, *vars.*
  - dasyphyllum
  - sexangulare
  - albescens
  - minus
  - Forsterianum *and vars.*
- Sempervivum tectorum
- Drosera subcaulescens
- Myriophyllum pectinatum
- Callitriche vernalis
  - Lachii
  - polymorpha
  - truncata
- Lythrum canescens
  - Hyssopifolia
- Epilobium brachycarpum
  - rosmarinifolium
  - parviflorum, *vars.*
  - Lamyi
  - ligulatum
- Œnothera biennis
- Circæa intermedia, Lond. C.
- Eryngium campestre
- Astrantia major
- Echinophora spinosa
- Physospermum commutatum
- Apium repens
  - Moorei
- Ammi majus
- Carum Bulbocastanum
- Pimpinella nigra
  - dissecta, Spreng.
  - dissecta, Wallr.
- Anthriscus Cerefolium
- Seseli Libanotis
- Coriandrum sativum
- Œnanthe pimpinelloides
  - peucedanifolia
  - fluviatilis
- Siler trilobum
- Archangelica officinalis
- Peucedanum officinale
  - Ostruthium
- Tordylium maximum
- Daucus gummifer
- Caucalis latifolia
  - daucoides
- Sambucus laciniata
- Galium ochroleucum
  - insubricum
  - Bakeri
  - nitidulum
  - elongatum
  - anglicum
  - Vaillantii
- Asperula taurina
  - arvensis
- Valeriana sambucifolia
  - pyrenaica
- Centranthus Calcitrapa
- Valerianella eriocarpa
  - Auricula
  - mixta
- Scabiosa maritima
- Solidago angustifolia
- Aster Salignus
- Filago spathulata
- Antennaria margaritacea
  - hyperborea
- Gnaphalium pilulare
  - luteo-album
  - norvegicum
- Inula salicina
- Xanthium strumarium
  - spinosum
- Diotis maritima
- Anthemis anglica
- Matricaria salina
  - maritima
- Artemisia coarctata
- Doronicum plantagineum
- Senecio flosculosus
  - pinnatifidus
  - paludosus
  - palustris
  - campestris
- Arctium subtomentosum
  - nemorosum

Carduus nutans × crispus
polyanthemos
acanthoides
Cnicus tuberosus
oleraceus
horridus
setosus
hybridi
Serratula monticola
Centaurea Jacea
decipiens
paniculata
Calcitrapa
solstitialis
Arnoseris pusilla
Picris arvalis
Crepis fœtida
nicæensis
hieracioides
Hieracium, *any except*
Pilosella
aurantiacum
iricum
pallidum
murorum
vulgatum
tridentatum
prenanthoides
umbellatum
crocatum
boreale
Hypochæris Balbisii
maculata
Taraxacum udum
Lactuca Scariola
uncinata
alpina
Prenanthes purpurea
Sonchus arvensis, *vars.*
Tragopogon grandiflorus
Lobelia urens
Campanula nana
lancifolia
speciosa
persicifolia
Rapunculus
Vaccinium uliginosum
Arbutus Unedo
Arctostaphylos alpina
Calluna Erica, *vars.*
Erica Watsoni
Mackayi
mediterranea
Phyllodoce taxifolia
Dabœcia polifolia
Pyrola maritima
secunda
Moneses grandiflora
Statice Limonium, *vars.*
Statice Dodartii
Armeria planifolia
plantaginea
Primula vulgaris, *vars.*
hybridæ
Cyclamen hederæfolium
Lysimachia angustifolia
punctata
ciliata
Anagallis cœrulea
Fraxinus heterophylla
Erythræa capitata
latifolia
tenuiflora
sphærocephala
Cicendia pusilla
Gentiana præcox
germanica
Cynoglossum subglabrum
montanum
Asperugo procumbens
Anchusa officinalis
Pulmonaria angustifolia
Myosotis Mittenii
Balbisiana
Cuscuta Epilinum
Solanum Dulcamara, *vars.*
nigrum, *vars.*
Datura Stramonium
Verbascum Lychnitis
nigrum
virgatum
hybrida
Linaria supina
Pelisseriana
purpurea
sepium
latifolia
Scrophularia cinerea
Veronica grandiflora
eximia
peregrina
repens
spicata
hirsuta
parmularia
Euphrasia officinalis, *vars.*
Bartsia verna
divergens
Melampyrum cristatum
arvense
pratense, *vars. exc. d.*
sylvaticum
Rhinanthus major, *vars.*
Orobanche, *any species*
exc. minor
Utricularia neglecta
intermedia
Bremii
Pinguicula grandiflora
alpina
Mentha alopecuroides
sylvestris, *vars.*
viridis
crispa
vulgaris
pubescens, *vars.*
citrata
sativa, *var.* subglabra
rubra
gracilis
cardiaca
pratensis
gentilis *and vars.*
arvensis, *vars.*
erecta
Origanum megastachyum
Calamintha Nepeta
Briggsii
sylvatica
Salvia pratensis
Nepeta parviflora
Scutellaria m. × galericulata
Stachys germanica
annua
Galeopsis angustifolia
dubia
bifida
Leonurus Cardiaca
Lamium intermedium
decipiens
Ballota nigra, *vars.*
Teucrium Chamædrys
Ajuga pyramidalis
Plantago intermedia
argentea
Timbali
minor
arenaria
Herniaria subciliata
ciliata
hirsuta
Amaranthus retroflexus
Chenopodium cymosum
album, *vars.*
opulifolium
ficifolium
hybridum
urbicum, *and vars.*
botryodes
glaucum
Atriplex marina
patula, *and vars.*
hastata
prostrata
virescens
pedunculata
Salicornia herbacea, *vars.*

Suæda procumbens
Polygonum pseudo-dumetorum
dumetorum
aviculare, *vars.*
maritimum
elatum
maculatum
Rumex rupestris
sanguineus
maritimus
palustris
sylvestris
acutus
conspersus
crispus, *vars.*
aquaticus
latifolia
alpinus
hybridi
Asarum europæum
Aristolochia Clematitis
Daphne Mezereum
Euphorbia Peplis
stricta
dulcis
coralloides
pilosa
Pseudo-cyparissias
Mercurialis ambigua
Ulmus montana, *vars.*
glabra
Urtica angustifolia
Dodartii
Parietaria fallax
Betula glutinosa, *and vars.*
nana
Quercus intermedia
Salix cuspidata
fragilis, *vars.*
alba, ,,
undulata
triandra, *vars.*
purpurea, ,,
Doniana
rubra, *vars.*
daphnoides
intricata
stipularis
Smithiana
pseudo-stipularis
ferruginea
rugosa
acuminata
cinerea, *vars.*
sphacelata
laurina
phylicifolia, *vars.*
nigricans, *and vars.*
Salix ambigua, *vars.*
repens, ,,
lanata
Lapponum, *and vars.*
Arbuscula, ,,
Myrsinites, ,,
Sadleri
Grahami, *and vars.*
Populus glabra
Ceratophyllum oxyacanthum
submersum
Taxus fastigiata
Pinus Pinaster
Stratiotes aloides
Malaxis paludosa
Liparis Loeselii
Corallorhiza innata
Spiranthes Romanzoviana
Epipogum aphyllum
Cephalanthera rubra
ensifolia
Epipactis media
purpurata
atro-rubens
Orchis hircina
purpurea
militaris
Simia
Ophrys Trollii
arachnites
aranifera
fucifera
Habenaria intacta
Cypripedium Calceolus
Iris citrina
Pseudacorus, *vars.*
tuberosa
Crocus, *any species*
Sisyrinchium angustifolium
Gladiolus illyricus
Narcissus, *any except* Pseudo-narcissus
Leucojum æstivum
vernum
Asparagus prostratus
Polygonatum verticillatum
Simethis bicolor
Allium Ampeloprasum *and vars.*
sphærocephalum
capsuliferum
complanatum
carinatum (*sponte*)
Schœnoprasum
sibiricum
paradoxum
Ornithogalum pyrenaicum
Lilium pyrenaicum
Martagon
Tulipa sylvestris
Lloydia alpina
Juncus fasciculatus
tenuis
diffusus
alpinus
supinus, *vars.*
acutiflorus, Buchenau
nigritellus, Don
multiflorus
castaneus
Luzula arcuata
sudetica
pallescens
Typha media
Sparganium affine
Wolffia arrhiza
Alisma lanceolatum
repens
Elisma natans
Damasonium stellatum
Scheuchzeria palustris
Potamogeton prolixus
polygonifolius, *vars.*
fluitans
spathulatus
sparganiifolius
Lonchites
maximus
nitens
curvifolius
lucens, *vars.*
decipiens
salicifolius
Griffithii *(fruit)*
prælongus
Jacksonii
serratus
zosteræfolius
major
fluvialis
Friesii
pusillus, *vars.*
Sturrockii
trichoides
scoparius
filiformis
Ruppia rostellata
nana
Zannichellia, *any except* palustris
Zostera angustifolia
Naias, *any species*
Eleocharis Watsoni
Scirpus pygmaeus
Holoschœnus
carinatus
triqueter
pungens

Scirpus compactus
dissitiflorus
Eriophorum alpinum
angustifolium, *vars.*
gracile
Schœnus ferrugineus
Kobresia caricina
Carex Davalliana
rupestris
ligerica
Ehrhartiana
rigida, A. Blytt
vulpinoides
Grypus
helvola
elongata
lagopina
alpicola
bracteata
alpina
Buxbaumii (*sponte*)
turfosa
acuta, *vars.*
trinervis
inferalpina
aquatilis, *vars.*
Goodenowii, ,,
glauca ,,
irrigua
rariflora
digitata
montana
Leesii
ericetorum
capitata
tomentosa
ustulata
frigida
punctata
xanthocarpa
pumila
lepidocarpa
ebracteata
Kochiana
cæspitosa
rostrata, *vars.*
diochroa
pulla
Grahami
Panicum sanguinale
glabrum
Setaria verticillata
Spartina alterniflora
Townsendi
Phalaris paradoxa
Anthoxanthum Puelii
Hierochloe borealis (*sponte*)
Alopecurus pronus
Watsoni
Phleum pratense, *vars.*
phalaroides
Agrostis maritima
nigra
Polypogon littoralis
Gastridium lendigerum
Apera interrupta
Deyeuxia, *any species*
Ammophila baltica
Aira aggregata
Deschampsia cæspitosa, *vars.*
alpina
Voirlichensis
Avena pratensis, *vars.*
strigosa
fatua, *vars.*
Arrhenatherum nodosum
Fibichia umbellata
Phragmites communis, *vars.*
Sesleria flavescens
Koeleria cristata, *vars.*
Molinia depauperata
Catabrosa littoralis
Poa stricta
laxa
glauca
Balfourii
nemoralis, *vars.*
compressa ,,
sudetica
pratensis, *vars.*
trivialis ,,
Glyceria plicata, *and vars.*
maritima, *vars.*
Borreri
Festuca ovina, *vars.*
arenaria
dumetorum
sylvatica
pseudo-loliacea
Bromus asper, *vars.*
villosus
madritensis, *vars.*
tectorum
velutinus
commutatus, *vars.*
mollis ,,
arvensis
Brachypodium glabrescens
pubescens
Lolium perenne, *vars.*
linicola
Agropyron biflorum
repens, *vars.*
pungens, *and vars.*
Lepturus incurvatus
Hordeum arenarium
Trichomanes radicans
Andrewsii
Asplenium fontanum
lanceolatum *vars.*
Adiantum-nigrum, *vars.*
acutum
anceps
Clermontæ
Ruta-muraria, *vars.*
germanicum
Athyrium Filix-fœmina, *vars.*
alpestre
obtusatum
flexile
Ceterach crenatum
Woodsia ilvensis
Cystopteris dentata
alpina
Dickieana
montana
Polystichum angulare, *vars.*
Lastræa Filix-mas, *vars.*
rigida
remota
cristata
uliginosa
spinulosa, *vars.*
dilatata ,,
Polypodium serratum
Gymnogramme leptophylla
Ophioglossum polyphyllum
Botrychium incisum
lanceolatum
Equisetum serotinum
Braunii
pratense (*with fruit*)
polystachyum
litorale
Moorei
trachyodon
variegatum, *vars.*
Lycopodium recurvum
annotinum
complanatum
Isoetes Moorei
echinospora
Chara fragilis, *vars.*
fragifera
connivens
aspera, *vars.*
baltica
affinis
contraria
hispidula
papillosa
tomentosa
hispida, *vars.*
vulgaris ,,
canescens
Braunii
Lychnothamnus stelliger

Lamprothamnus
alopecuroides
Tolypella nidifica

Nitella gracilis
mucronata
flexilis, *vars.*

Nitella attenuata
capitata

Any species or varieties not included in the Eighth Edition of the London Catalogue, or species not hitherto recorded for their Vice-County, may also be sent.

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For additions to this list, changes of address, &c., see page 11 of the Desiderata List for 1889 and 1890.

W. SESSIONS, PRINTER, YORK.

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1890.

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THE

SEVENTH ANNUAL REPORT

OF THE

WATSON
Botanical Exchange Club,

1890-1891.

Referees:—
Prof. BABINGTON, M.A., F.R.S., F.L.S., etc., Cambridge.
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London, N.

"Labor Omnia Vincit."

YORK:
William Sessions, Printer, 15 & 16, Low Ousegate.
1891.

REPORT FOR 1890—1891.

The number of contributors to the Club this year is 26, being five in excess of last year. The specimens sent, however, are less numerous, being 1775 against 1944, and less than half the number of those sent in 1888-89. It is to be hoped that the new and extensive list of desiderata will urge members, who have time and opportunity, to greater activity.

Some catalogues continue to be marked in an obscure or eccentric fashion, which is puzzling to the distributor. It also seems advisable to call attention to paragraphs 3rd and 4th of the Club Rules, as certain members still send specimens sadly deficient in quality and quantity. The referee for the *Rubi* complains that much of the material sent was very unsatisfactory, and members would do well to refer to Prof. Babington's advice to collectors of Brambles, as quoted in the Rules. Exception must be made, however, for Mr. J. T. Powell's examples, upon which almost unqualified praise is deservedly bestowed.

Not much general interest has been shewn this season in the critical genera, in fact with the exception of the *Rubi* these have been very much, or entirely, neglected. With regard to sending "*ex horto*" specimens, of which too many have come to hand, it has been thought well to add a rule to the effect that in future such can only be accepted under certain restrictions.

Professor Babington, to whom as referee for the *Rubi* the Club has been so greatly indebted in the past, was unwillingly obliged to decline examining them this year. At Mr. A. Bennett's suggestion, application was made to the Rev. W. Moyle Rogers, an acknowledged and experienced authority, who most kindly consented to undertake them. For the time and trouble he has devoted to this work our sincerest thanks are due to him, as also to the unfailing kindness of Mr. A. Bennett, F.L.S., who has examined a specimen of every plant sent to the Club. Where he dissents from, questions, or qualifies the naming of a plant, his remarks are given in full, otherwise it is to be understood that he agrees with the name as given by the contributor. To Mr. F. J. Hanbury F.L.S., who has looked over the *Hieracia*, and to the Rev. E. F. Linton, for valuable hints and suggestions, the Club must record its grateful thanks.

The plants received are here acknowledged with the numbers reckoned as specimens :—

Mr. A. Bennett, F.L.S.	55
Mr. E. D. Bostock	19
Mrs. Cotton	106
Mr. A. J. Crosfield	9
Mr. C. Crossland	7
Miss M. E. Dawber	137
Mr. T. B. Flower, F.R.C.S., F.L.S.	52
Rev. J. D. Gray, M.A.	83
Mr. H. Goss, F.L.S.	21
Mr. J. E. Griffith, F.L.S.	140
Mr. J. K. Gude	28
Miss D. M. Higgins	35
Mr. A. E. Lomax	95
Mrs. Lomax	57
Rev. E. F. Linton, M.A.	64
Rev. W. R. Linton, M.A.	154
Mr. P. J. Lee	22
Mr. H. T. Mennell, F.L.S.	76
Dr. P. Maclagan	23
Mr. J. T. Powell	55
Rev. W. H. Painter	144
Capt. A. Steuart	59
Rev. J. Vaughan, M.A.	76
Mr. F. H. Ward	83
Mr. C. Waterfall	92
Mr. J. T. Williams	83
	1775

H. P. Reader, Distributor for the year 1890-91.

Thalictrum riparium, Jord. Banks of Mersey, Speke, Lancs. July, 1888.—A. E. Lomax. Not so, this is var. *sphærocarpum* of Syme's Eng. Bot.—A. Bennett.

Ranunculus penicillatus, Hiern. Lapford, Devon, June, 1890. —D. M. Higgins. Probably a form of *R. peltatus*, but not *penicillatus*, Hiern.—A. Bennett.

Ranunculus sp. Below Beddgelert, in running water, July, 1890.—H. T. Mennell. A form of *R. floribundus*.—Bab. A. Bennett.

Nasturtium microphyllum, Reichb. Near Hightown, Lancs, June 16th, 1890.—A. E Lomax. Seems correct.—A. Bennett.

Sisymbrium pannonicum.—Jacq. By Railway, Crosby, Lancs, August, 1889.—A. E. Lomax.

Viola calcarea, Bab. Braunton Burrows, Devon, June, 1890.—D. M. Higgins. A small form of *hirta*, not the *calcarea*—Bab. of the Gogmagog Hills.—A. Bennett.

Viola Curtisii, Forster. Braunton Burrows, Devon, April, 1890.—T. A. and C. Cotton.

Viola nana. L'Ancresse, Guernsey, 27th May, 1890.—M. E. Dawber. This is scarcely the proper name for this plant unless Miss Dawber wishes her name put as sponsor for it as a species. It should be called *V. tricolor* (L.), var. *nana* (De Candolle). It has been found in Jersey and the Scilly Isles.—A. Bennett.

Lepigonum neglectum, Kindb. Criccieth, Caernarvon, July, 1890.—W. H. Painter. I should have named this a maritime form of *L. rubrum*, not *neglectum*.

Lepigonum salinum, Fr. Criccieth, Caernarvon, July, 1890.—W. H. Painter. *L. marginatum.*—A. Bennett.

Cytisus prostratus, Bailey. Guernsey, July 6th, 1890.—M. E. Dawber.

Anthyllis maritima. Dawlish, Devon, May, 1890.—C. Cotton. Probably correct.—A. Bennett.

Rubus rhamnifolius, W. and N.? Snaresbrook, Essex, 12th August, 1890, J. T. Powell. Certainly not *rhamnifolius*. Probably *R. rhombifolius.*—Weihe, from a sunny spot.—W. M. R.

R. polyanthemos, Ldbg. near Bangor: N. Wales, August, 1890,—J. E. Griffith. "Yes,"—W. M. R.

R. rhamnifolius, W. and N. Oakhill, near Woodford, Essex. 14th September, 1887.—J. T. Powell. Luxuriant specimens of the ordinary English form, and so not what Dr. Focke considers typical *rhamnifolius*. See his paper, Journal of Botany 1890.—W. M. R.

R. hemistemon, P. J. Müll, Hedge, Simonswood, Lancashire 18th September, 1889. A. E. Lomax. Right I think.—W. M. R.

R. hamulosus, Müll. Hedge near Bidston, Cheshire. 23rd September, 1889.—A. E. Lomax. An interesting plant, clearly belonging, I think, to the *Rhamnifolii*, It will probably have to go under the aggregate. *R. nemoralis*, P. J. Müll, but I have seen nothing quite like it before. The specimens are most imperfect.—W. M. R.

R. hamulosus, P. J. Müll. High Beech: Essex. 23rd August, 1890.—J. T. Powell, "Fid. Pro. Babington."

R. pubescens, W. and N. "*R. thyrsoideus.*—Bab. vid. report for 1889. p. 3." Gt. Horkesley: Essex. 1st September, 1890.—J. D. Gray.

R. pubescens, W. and N. High Beech: Essex. 23rd August, 1890.—J. T. Powell. *R. leucostachys*, I think—W. M. R.

R. rusticanus, Merc? High Beech, Essex, August 13th, 1890.—J. T. Powell. I suspect of hybrid origin—*rusticanus* × *pyramidalis ?* Certainly not *rusticanus*, Merc.—W. M. R.

R. danicus, Focke. Norton-in-the-Moors, Staffs., 7th August, 1890.—W. H. Painter. Mr. Painter may be right in calling this plant *R. danicus*, Focke, but it seems to differ considerably from two sheets of that species given me by Dr. Focke himself. They reminded me of *R. Schlechtendalii*, whereas this looks as if it should come in between *villicaulis* and *leucostachys*. —W. M. R.

R. calvatus, Blox.? Hagger Road, Walthamstow, Essex., 27th August, 1890.—J. T. Powell. *R. macrophyllus*—W. and N., I believe.—W. M. R.

R. calvatus, Blox. Near Bangor, North Wales, August, 1890.—J. Griffith. Just the plant so common about Bournemouth referred to as "*R. villicaulis*, Koehl. *R. calvatus*, Blox., in Dr. Focke's paper J. of B., 1890., p. 129.—W. M. R.

R. carpinifolius, W. and N. Rudyard, Staffs., 7th September, 1890.—W. H. Painter. Yes.—W. M. R.

R. villicaulis, Koehl.? Beyond Robin Hood, Epping Road. 23rd August, 1890.—J. T. Powell. *R. pyramidalis*, Kalt.—W. M. R.

R. amplificatus, Lees. Near Wake Arms, Epping Forest, 13th August, 1890.—J. T. Powell. "fid. Prof. Babington."

R. Sprengelii, Weihe, var. *Borreri*, Bell-Salt. Oxton Heath, Cheshire, 23rd August, 1890.—A.E. Lomax. I think R. *Sprengelii*, Weihe, but a curious form, with leaflets narrower and much more hairy than in type, and panicle more prickly, more leafy, and with ascending composite branches.—W. M. R.

R. rosaceus, W. and N. High Beech, Essex, 23rd August, 1890.—J. T. Powell. This handsome plant seems just intermediate between *R. echinatus* (Lindl.) and *R. rosaceus* (W. and N.), but with mature stems very different from both.—W. M R.

R. rosaceus, W. and N.? High Beech, Essex, 1st, September, 1890.—J. T. Powell. Under *R. echinatus*, Lindl., I think. A remarkable and very beautiful var.—W. M. R.

R. rosaceus, W. and N. Walthamstow, 22nd August, 1890.—J. T. Powell. "fid. Prof. Babington."

R. Hystrix, Weihe. Near Penrhyn Quarry, Bangor.—J. E. Griffith, August, 1890. Good *Hystrix*.—W. M. R.

R. echinatus, Lindl. Near High Beech, Essex, 1st September, 1890.—J. T. Powell. Typical. Beautiful specimens.—W. M. R.

R. macrothyrsus, Lange. Near Bangor, N. Wales, July, 1890.—J. E. Griffith. Yes.—W. M. R.

R. Radula, Weihe. Kinsar, near Bournemouth, 18th August, 1890.—E. F. Linton. I do not know where to place this plant except under *Radula*, but I should say it varies considerably from the type, in the direction of *Koehleri*.—W. M. R.

R. Radula, Weihe, var. ? Alder Car, near Bradley, Derbyshire, 22nd September, 1890.—E. F. Linton. Yes, I suppose, but a very curious variety.—W. M. R.

R. Radula, Weihe, var. ? Yeldersley Rough, near Bradley, Derbyshire, 23rd September, 1890.—E. F. Linton. Differing from the Alder Car plant, only by dense long hairs of panicle.—W. M. R.

R. melanodermis, Focke. ? Near Shirley, S. Derbyshire, 5th October, 1889.—W. R. Linton. Very distinct from *melanodermis* Focke. I think a var. of *Radula*, differing from the type in the direction of *echinatus*, and, more remotely, *rudis*.—W. M. R.

R. Koehleri, Weihe. Ludgate Plain, Sewardstone, Essex, 9th August, 1890,—J. T. Powell. Yes, though rather weak agreeing well with specimens that I have received from Central Germany through Dr. Focke as *R. Koehleri*, W. and N.—W. M. R.

Rubus sp. ? Polstead Marsh, Suffolk, July, 1890.—J. D. Gray. *R. Koehleri*, W. and N. Form differing from type by its thick felted leaves, and narrow (depauperated ?) panicle.—W. M. R.

R. Koehleri, Weihe. Rudyard, Staffs., 28th, July, 1890.—W. H. Painter. *R. scaber*, W. and N.—W. M. R.

R. fusco-ater, Weihe. Stream bank, Coxley Valley, near Dewsbury, S. W. Yorks, 1890.—P. F. Lee. I think certainly *Hystrix* or *Koehleri*, but I cannot say which.—W. M. R.

Rubus sp. ? Coxley Valley, near Dewsbury, S. W. Yorks., 1890.—P. F. Lee. Might perhaps go under *R. Lejeunei*, W. and N.—W. M. R.

R. hirtus, W. and N. Anglesey.—J. E. Griffith, August, 1890. *R. pallidus*, Bab. (*non* W. and N.) I believe; or what I am not able to distinguish from this—*R. saxicolus*, P. J. Müll.—W. M. R.

Rubus sp. ? Pepper Alley, High Beech, Essex, 25th August, 1890.—J. T. Powell. An interesting form of the *hirtus* group. I think *R. velatus*, Lej., or very near it.—W. M. R.

Rubus sp. ? Margin of Wood, Long Itchington, Warw., July, 1890.—P. F. Lee. Perhaps a strongly armed thick-leaved form of *R. Balfourianus*, Blox., but sp. too young for positive determination.—W. M. R.

Rubus sp. Hedge, Long Itchington, Warw., July, 1890.—I suspect *R. corylifolius*, var. *conjungens*, Bab., in spite of the stellate hairs on barren stem. Vid. Brit. Rub., p. 266.—W. M. R.

R. scabrosus, P. J. Müll. Near Shirley, S. Derbyshire, 14th October, 1889, W. R. Linton. I do not understand *R. scabrosus*, P. J. Müll, but the specimens Prof. Babington has so named for me are very different from this plant, which I think I should have put under *corylifolius*, Sm.—W. M. R.

Rubus sp. Wood near Claughton, Cheshire, 20th September, 1886.—A. E. Lomax. I cannot name this; it seems to me somewhat between *corylifolius* and *coesius*, but nearer the latter. Can it be a *dumetorum* form ?—W. M. R.

R. ligerinus, Genev. Ballidon, near Shirley, S. Derby, 20th August, 1889.—W. R. Linton. "fid. Prof. Babington."

R. rusticanus × *coesius* ? Gt. Orme's Head, Caernarvon.—J. Lloyd Williams, 1890. Mr. Lloyd Williams has no doubt good grounds for considering most of these specimens hybrids between *coesius* and *rusticans*. Some, however, appear to be purely *coesius*. The question of hybridity in the *Rubi* is peculiarly difficult of settlement from dried specimens only.—W. M. R.

Rosa tomentosa var. Criccieth, Caernarvon, July, 1890.—Rev. W. H. Painter. "Is var. *subglobosa*."—J. G. Baker.

R. spinosissima var. Bangor, August, 1890.—J. G. Griffith. "Is the type."—J. G. Baker.

R. scabriuscula. Criccieth, Caernarvon July, 1890.—Rev. W. H. Painter. "Yes."—J. G. Baker.

Potentilla palustris, Scop., var. *villosa*, Lehm. Near Holyhead, Anglesey, August, 1890.—J. E. Griffith.

Sedum Forsterianum, Sm. Braunton Burrows, Devon, July, 1890.—D. M. Higgins. Material not good, probably only *S. elegans*, Lej.—A. Bennett.

S. Forsterianum, Sm. Rocks near Llanrhiadyr, 2nd August, 1890.—A. E. Lomax.

Epilobium sp. Tal-y-llyn, July, 1890.—H. T. Mennell. *E. obscurum*, Schreb.—A. Bennett.

Epilobium sp. Machynlleth, July, 1890.—H. T. Mennell. *E. obscurum* × *montanum*, = *E. aggregatum*, I think.—A. Bennett.

E. montanum × *obscurum*. Near Shirley, S. Derby, 11th August, 1890.—W. R. Linton.

Matricaria salina, Bab. Criccieth, 1890.—J. Lloyd Williams.

Arctium nemorosum, Lej. Roadside near Llanfihangel, Monmouthshire, 22nd August, 1890.—M. E. Dawber. Lange now considers (Hand. Danske Flora, Ed. 4, p. 357) that *A. nemorosum*, Lej. (Fl. Spa., 1813) is the same as his *intermedium*, but agrees with me in thinking that *A. nemorosum*, Bab., is not the same, but a var. or sub sp. Therefore Miss Dawber is practically correct in her name as to Lejeune but not as to Babington.—A. Bennett.

Calendula arvensis, L. ? St. Sampson's, Guernsey, 27th May, 1890.—M. E. Dawber. Correct.—A. Bennett.

Hieracium gothicum, Fr., var. *vestitum*. I. of Skye, August, 1888.—W. R. Linton.

Hieracium sp.? "Styles dark, suggest *orarium*." Capel Curig, July, 1890.—H. T. Mennell. *Orarium*, Lindb.

H. orarium? Tal-y-llyn, Montgomery, July, 1890.—H. T. Mennell. *Orarium*, Lindb.

H. bifidum. Rocks, Cwm Idwal, Caernarvon, July, 1890.—H. T. Mennell.

H. caledonicum. I. of Skye, July, 1888.—W. R. Linton.

H. gothicum, Fr. Clova, Forfar, July, 1889.—W. R. Linton.

H. argenteum, Fr. Broad-leaved form. Braemar, S. Aberdeen, July, 1889.—W. R. Linton.

H. sparsifolium, Lindeb. Bank of Ogwen River, Caernarvon, August, 1890.—J. E. Griffith. (Vid. J. of B., vol. 27, p. 73).

Statice Dodartii, Gir. Gt. Orme's Head, 1890.—J. Lloyd Williams. This seems to be the same as Syme's var. *intermedia*. So far as British specimens go, our *Dodartii* is inseparable.—A. Bennett.

Euphrasia gracilis, Fr. Symond's Yat, Glos., 1890.—M. E. Dawber. Apparently correct.—A. Bennett.

Orobanche amethystea, Thuill. Guernsey, June, 1890.—M. E. Dawber. Probably correct.—A Bennett.

Mentha Nicholsoniana.—Strail. Whitney-on-Wye, 1890.—M. E. Dawber. (Vid. J. of B., vol. 27, p. 56).

Mentha sp.? Portmadoc, 1890.—J. Lloyd Williams. *M. Pulegium*, var. *erecta*, Syme.—A. Bennett.

Galeopsis dubia, Leers. Near Vodal Farm, Bangor, 1890.—J. E. Griffith.

Polygonum pseudo-dumetorum, H. C. Wats. Renishaw, C. Waterfall, 1890. I should name this simply *P. convolvulus*, L. It is not like Mr. Watson's plant, which strongly simulates *dumetorum*.—A. Bennett.

P. vulgatum, Syme. Hightown, Lancs.—A. E. Lomax. Seems correct.—A. Bennett.

P. vulgatum, Syme. Ripple, Worc., 1890.—C. Waterfall. Not so, it is our *rurivagum*.—A. Bennett.

P. maritimum, L. Llandudno, August, 1890.—J. Lloyd Williams. *P. Raii*, Bab. = *P. Roberti*, Loisel.—A. Bennett.

P. maritimum, L. Braunton Burrows, Devon, July, 1890.—T. B. Flower.

Salix aurita, L. × *cinirea*, L. Near Shirley, S. Derbyshire, May and August, 1890.—W. R. Linton.

S. aurita, L × *caprea*, L. Near Shirley, S. Derbyshire, May and August, 1890.—W. R. Linton.

S. aurita, L., *forma androgyua*. Near Shirley, S. Derbyshire, 1890.—W. R. Linton.

Ceratophyllum submersum, L. Salhouse, Norfolk, June, 1890.—C. Cotton. Probably correct, but I can find no fruit.—A. Bennett.

Ceratophyllum submersum, L. Near Tewkesbury, Glos., August, 1890.—C. Waterfall. As Last.—A. Bennett.

Allium Ampeloprasum, L., v. *bulbiferum*, Syme. Cliffs at Fort George, Guernsey, July, 1890.—M. E. Dawber.

Juncus fasciculatus, Koch. The Warren, Conway Bay, August, 1890.—C. Waterfall. May pass, but not good.—A. Bennett.

J. tenuis, L. Portmadoc, 1890.—J. L. Williams.

J. nigritellus (Don.)? Afonwen, Caernarvon, September, 1890.—J. Lloyd Williams. *J. lamprocarpus* only.—A. Bennett.

Juncus sp.? Llyn Cunnoch, near Dolgelly, July, 1890.—H. T. Mennell. *J. supinus*, Moench., var. *fluitans*.—A. Bennett.

Elisma natans, Buchenan. Lake near Dolgelly, Merioneth., July, 1890.—H. T. Mennell.

Potamogeton plantagineus, Du Croz. Hickling, Norfolk, July, 1890. Correct. But an earlier name is *P. coloratus*, Horneman, Flora Danica, t. 1449, 1813.—A. Bennett.

Potamogeton acuminatus (Schum.). Candledyke, near Hickling, Norfolk, July, 1890.—C. Cotton. Not good, or characteristic of the form.—A. Bennett.

Ruppia rostellata, Koch. Afonwen, Caernarvon, September, 1890.—J. Lloyd Williams. This comes very near var. *transilvanica.*—Schur.

Zannichellia brachystemon, J. Gay. Welland Common, Worc., in stream, August, 1890.—C. Waterfall. To name *Zannichelliae* without fruit is mere guess work!—A. Bennett.

Scirpus maritimus, L., var., *compactus*, Reichb. Marshy ground near coast, Skegness, Lincs., September, 1890.—P. J. Lee.

Carex trinervis, Degland. Ormesby, Norfolk, 21st September, 1888.—E. F. Linton. Certainly seems very near var. *laxa*, Lange; the plant is not so typical of the species as some foreign specimens are.—A. Bennett.

C. flava, L., var. *minor*, Townsend. Hickling, Norfolk, 1890. —C. Cotton. No! This is *C. chrysites*, Link. = *C. Oederi*, Auct. Angl. non Ehrh.

C. Oederi (*C. chrysites*, Link.). Coxley Valley, S. W. Yorks., June, 1890.—P. J. Lee.

C. lepidocarpa, Tausch. Cwm Glas, Snowdon, 1890.—J. Lloyd Williams. *C. fulva*, Good.—A. Bennett.

C. lepidocarpa. Snowdon, July, 1890.—J. Lloyd Willliams. Habit of *lepidocarpa*, but stem not scabrous enough to be typical.—A. Bennett.

Agrostis nigra, With. Belmont Road, Bangor, N. W., July, 1890.—J. E. Griffith. Poor, but I believe correct.—A. Bennett.

Polypogon littoralis, Sm. Porchester, Hants., July, 1890.— J. Vaughan.

Bromus mollis, L., var. *glabrescens*, Coss. Criccieth, Caernarvon, 1890.—W. H. Painter. This certainly does not agree with the description in the Flore Envs. de Paris of Cosson and Germain, the spikes are much too heavy.—A. Bennett.

Brachypodium sylvaticum, R. and S., var. *glabrescens*, Syme.— A. E. Lomax. *B. gracile*, Beauvais (Agrostographie, 1812), is an earlier name. I have not seen Syme's plant, but suppose this would be it.—A. Bennett.

Agropyron pungens, R. and S. Criccieth, Carnarvon, July, 1890.—W. H. Painter. Clearly *A. junceum*, L.—A. Bennett.

Cystopteris alpina, Desv. Clogwyn du a Ardu, Snowdon, 26th July, 1890, Coll.—J. Lloyd Williams. Is "a very dissected form of *fragilis*."—J. G. Baker.

Polystichum angulare. Berwickshire, 11th July, 1872. Ex. herb. Maclagan. "Yes."—J. G. Baker.

Chara polyacantha, A. Br. Hickling, Norfolk, 1890.—C. Cotton. Correct. A pretty form.—A. Bennett.

C. papillosa, Kuetz. Somerton Broad, Norfolk, July, 1890.—C. Cotton.

C. baltica, Bruzel. Near Lizard Town, W. Cornwall, July, 1890.—E. D. Bostock. Not type, but var. *affinis*, H. and J. G.—A. Bennett.

TREASURER'S BALANCE SHEET FOR YEARS 1889-90.

	£	s.	d.		£	s.	d.	£	s.	d.
Balance from 1888	2	1	4½	W. Sessions Accts.	0	11	2			
Subscriptions, 1889-90	6	5	0		4	7	2			
					0	16	11			
					0	0	3			
								6	5	6
				Exchange Expenses.						
				Rev. W. H. Fox, 1889				0	18	3
				F. H. Ward, 1890				0	19	4½
				Postages				0	2	2
				Balance				0	1	1
	£8	6	4½					£8	6	4½

P. F. LEE, *Hon. Treasurer.*

The above account is made up to Dec. 31st, 1890. But printer's bills to the amount of £2 17s. 6d. were unpaid at that date.

It is intended in next year's report to publish a list of subscriptions and balance sheet up to Dec. 31st, 1891.

The members must regret that Mr. P. F. Lee is compelled by pressure of other engagements to resign his post as Treasurer. Subscriptions (which are due Jan. 1st, 1892) should be sent to our new Treasurer, Mr. James T. Powell.

The members are indebted to the Rev. H. P. Reader and previous Distributors for their valuable help in arranging the Distributions and preparing the Reports, as both involve a great expenditure of thought and time.

T. A. COTTON, *Hon. Sec.*

THE

EIGHTH ANNUAL REPORT

OF THE

WATSON
Botanical Exchange Club,

1891-92.

Referees :—

Prof. BABINGTON, M.A., F.R.S., F.L.S., etc., Cambridge.
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"Labor Omnia Vincit"

YORK:
William Sessions, Printer, 15 & 16, Low Ousegate
1892.

REPORT FOR 1891–1892.

The number of contributors to the Club this year is 31, whilst the total amount of specimens sent is 4158, the largest which has come to hand for several years past. The number of species, however, is by no means proportionately great, since by an unavoidable coincidence it has happened that the same plant, in several cases, has been collected and forwarded by different members. As is proved by an *Index Expurgatorius* prefixed to this year's desiderata list, members have now been supplied with many of the conspicuous rarities, and this, it is hoped, will clear the way for a more thorough investigation of the critical genera—one of the main ends and objects of the Club's existence. It must be admitted that Roses and Brambles continue to receive a fair share of attention, the same however cannot be said for *Carex*, *Potamogeton*, *Salix*, and other difficult groups too numerous to quote here. To the diligence of Messrs. H. L. Levinge and R. L. Praeger, the Club is indebted for a large number of very acceptable Irish plants; whilst the Channel Island's Flora is, as usual, well represented by Miss Dawber's long series of beautiful specimens. The Rev. W. Moyle Rogers has again kindly consented to supply Prof. Babington's place as referee for the *Rubi*. To him, as well as to Messrs. A. Bennett, F. J. Hanbury, and Mr. J. G. Baker the Club's warmest thanks are due in examining and reporting on the contributions. The bulk of the plants, excluding Brambles, have passed through Mr. Bennett's hands, and it is to be understood that he acquiesces in the naming of species not specially mentioned in the Report.

The plants received are here acknowledged with the numbers reckoned as sheets of specimens :—

Mr. A. Bennett, F.L.S.	57
Mr. E. D. Bostock	15
Mrs. Cotton	124
Mr. A. J Crosfield	69
Mr. C. Crossland	31
Miss M. E. Dawber	203
Rev. J. D. Gray, M.A.	82
Gl Mr. H. ~~Cr~~oss, F.L.S.	49
Mr. J. E. Griffith, F.L.S.	115
Mr. H. Geldart	64
Mrs. Gregory	11
Miss D. M. Higgins	102
Mr. A. B. Hall	116
Mr. H. L. Levinge, J. P., D.L.	438
Mr. A. E. Lomax	85
Mrs. Lomax	111
Rev. E F. Linton, M.A.	163
Rev. W. R. Linton, M.A.	130
Mr. G. E. Martindale	70
Mr D. Nicolson	45
Mr. R. Paulson	26
Mr. J. T. Powell	104
Rev. W. H. Painter	498
Mr. R. L. Praeger	500
Rev. H. P. Reader, M.A.	102
Mr. C. E. Salmon	34
Captain A. Steuart	253
Rev. J. Vaughan, M.A.	101
Mr. F. H. Ward	199
Mr. T. W. Woodhead	39
Mr. C. Waterfall	222
	4158

H. P. Reader, Distributor for 1891-92.

Thalictrum minus, L., b. *montanum*, Wallr. Cheddar, Som., Aug. 1891.—C. Cotton. Is *T. flexuosum*—Bernh, probably. Mr. N. E. Brown in E. B. Supp. (1892), p. 2, says that he has been unable to make characters of the auricles of the leaves in the dried plant. My own limited experience with growing two or three of our forms is that they can be separated from one another by these before the plants are in flower ; but much more work is needed before it would be safe to say anything definitely on this and other points in the cultivated specimens. It may here be mentioned that I have failed to get a name for our Cambridgeshire plant from the Continent.—A. B.

T. minus, L., c. *flexuosum* (Reichb.), Blackhead to Clare, June, 1891.—H. L. Levinge. *T. flexuosum*, Bernh.—A. B.

Ranunculus fluitans, Lam. Slow-flowing stream, Antrim, June, 1891.—R. L Praeger. If this is *fluitans*, which I doubt, it must be var. *minor* (*R. Bachii*), but there is no fruit.—A. B.

R. pseudo-fluitans, Bab. Running water, Cheddar, Som., August, 1889.—E. S. Gregory. *R. submersus*, Hiern.—A. B.

R. pseudo-fluitans, Bab. River Suck at Mt. Talbot, Co. Roscommon, July, 1891.—H. L. Levinge. *R. penicillatus*, Hiern. (*R. pseudo-fluitans*, Bab., ed. 6). This is what Hiern restricts *penicillatus* to.—A. B.

R. pseudo-fluitans, Bab., b. *submersus*, Hiern. Mill stream, Nayland, Suffolk, May, 1891.—J. D. Gray. *R. pseudo-fluitans*, Hiern. I should have named this without the name *submersus*. If I understand that plant correctly, it is nearer *R. Drouettii* than this is.—A. B.

R. trichophyllus, Chaix. Cobo, Guernsey, May, 1890.—M. Dawber. I think correct.—A. B.

R. trichophyllus, Chaix. Mudbank by river, Knock Drin, Co. Westmeath, July, 1891.—H. L. Levinge. Probably *R. Drouettii*. —A. B.

R. trichophyllus, Chaix. Pond in field near Helperley, Yorks , May, 1890.—C. Waterfall. Certainly not. *R. heterophyllus*, Fr., var , but impossible to say what form.—A. B.

R. trichophyllus, Chaix. Pool, Craigavad, Co. Down, June, 1891.—R. L. Praeger. Too young; either *R. floribundus* or *truncatus*, not *trichophyllus*.—A. B.

R. Drouetii, Godr., var. *Godronii*, Gren. Quarry Bog, Co. Westmeath, June, 1891.—H. L. Levinge. I think correct.—A. B.

R. Godronii, Gren. ? Pool, Craigavad, Co. Down, June, 1891. R. L. Praeger. *R. heterophyllus*, Fr.—A. B.

R. peltatus, Schrank, v. *truncatus*, Hiern. Paradis Pond, Guernsey, Sept , 1891.—M. Dawber. I believe correct.—A. B.

Ranunculus sp. ? Ditch, Clandeboye, Co. Down, June, 1891.—R. L. Praeger. *R. heterophyllus*, Fr.—A. B.

Ranunculus sp. ? Still pool, Langford Lodge, Co. Antrim, May, 1891.—R. L. Praeger. *R. heterophyllus*, Fr.—A. B.

Ranunculus sp. ? Shallow stream, Dundonald, Co. Down, June, 1891.—R. L. Praeger. Probably *R. heterophyllus*, Fr., before floating leaves were produced.—A. B.

Ranunculus sp. ? Still water, Clandeboye upper lake, June, 1891.—R. L. Praeger. Too poor to name.—A. B.

Ranunculus sp. ? Still water, Clandeboye lower lake, June, 1891.—R. L. Praeger. *R. floribundus*, Bab., I believe.—A. B.

Ranunculus sp. ? Muddy pool near Holywood, Co. Down, June, 1891.—R. L. Praeger. A curious form, that looks as if the conditions surrounding it (mud instead of water) had produced it. It may be either a *heterophyllus* or a *Drouettii* state.—A. B.

Fumaria confusa, Jord. Grasmere, Westmoreland, August, 1891.—C. Waterfall Not *confusa*, but I am unable to give it a name. I have nearly the same plant from Wigtonshire; it seems allied to *F. flabellata*, Gasp.—A. B.

F. confusa, Jord. Aberystwyth, July, 1891.—W. H. Painter. I think this is rather *F. muralis*, Sond.—A. B.

F. confusa, Jord. Near Thirsk, Sept., 1891.—A. B. Hall. May be correct, but the flowers badly dried.—A. B.

Barbarea stricta, Andrz. Banks of Oüse, near York, July, 1886.—C. Waterfall. May be correct, but specimens insufficient in a critical species.—A. B.

B. intermedia, Bor. Cultivated ground, Downpatrick, Co. Down, July, 1891.—R. L. Praeger. Seems to me only *B. vulgaris*. —A. B.

Draba incana, L., b. *confusa*, Ehrh. Near Malham Cove, Yorks., Oct., 1887.—C. Waterfall. Mr. Waterfall is in error in supposing this to be the plant of Ehrhart. It is the "*a. legitima*," Lindbl., that is, the ordinary form of the plant. *D. confusa* has pubescent silicules, these are glabrous.—A. B.

Helianthemum marifolium, Mill. On rocks, Blackhead, Co. Clare, June, 1891.—H. L. Levinge. More luxuriant than the English plant, as seems to be the case with the Galway plant according to Syme, E. B., II., p. 10 (1864).—A. B.

Dianthus Armeria, L. Railway banks, Lutŏn, July, 1891.—D. M. Higgins. If in Beds. a new record for the county.—A. B.

Saponaria officinalis, L., var. *puberula*, Syme. In Muro, Hightown, Lancs., August, 1891.—A. E. Lomax. The original station for the plant, whence Syme so named it.—A. B.

Arenaria gothica, Fries. I send a few specimens from Sweden to shew what the plant is, as it is very nearly extirpated in its first found Yorkshire station. Fortunately the second one has not been published, and so may be trusted to be safe. It is strange that botanists cannot think of those who are coming after us; it is intensely selfish to take all, or nearly all, of a rare species for oneself.—A. B.

Lepigonum rupestre, Kindb. Downderry, Cornwall, July, 1887. —J. Vaughan. The typical state.—A. B.

L. rupestre, Kindb. Castle Rocks, Aberystwyth, July, 1891.—W. H. Painter. A new record for Cardigan, Co. 46.—A. B.

Hypericum perforatum, L., var. *angustifolium*, Gaud. Verwood, S. Hants., August, 1891.—E. F. Linton. Not good, but may pass.—A. B.

H. perforatum, L., var. *angustifolium*, Gaud.—Molton, N. Devon, August, 1891.—D. M. Higgins. Very poor example.—A. B.

H. quadrangulum, L., var. *maculatum*, Bab.? Woods near Stroud, Glos., W., August, 1891.—H. P. Reader. May pass, but the distinction is small between this and type.—A. B.

Lavatera sylvestris, Brot. Vale, Guernsey, Sept. 1891.—M. Dawber. In E. B., Supp., p. 52, Mr. N. E. Brown identifies this with *Lavatera cretica*, L. (Sp. pl., ed. 1, 2, 691). This name was published in 1753, Brotero's in 1804.—A. B.

Ulex nanus, Forst. Beaulieu Heath, Aug., 1887.—J. Vaughan.

U. nanus, Forst. Redhill Common, Sept., 1891.—A. J. Crosfield. There looks a good deal of difference between the Beaulieu and the Redhill Plants, but I believe Mr. Vaughan's is produced by either cutting over, or burning. I have seen exactly the same on Woking Heath.—A. B.

Lotus corniculatus, L., c. *villosus*, Coss. and Germ. Salcombe Gap, S. Devon, July, 1891.—C. Cotton. Merely a hairy state of the type; not the plant of Cosson and Germain, which is as hairy as the rare species *L. hispidus*, Desf.—A. B.

Rubus sp.? Quarry Bog, Co. Westmeath, July, 1891.—H. L. Levinge. Is *R. suberectus*, Anders.—W. M. R.

R. fissus, Lindl. Cliff Wood, Rudyard, Staffs., August, 1891.—W. H. Painter. Yes.—W. M. R.

R. fissus, Lindl. Horton, Staffs., August, 1891.—W. H. Painter. Yes.—W. M. R.

Rubus sp.? Drinmore, Co. Westmeath, July, 1891.—H. L. Levinge. Is *R. fissus*, Lindl.—W. M. R.

Rubus sp.? Wood, Shane's Castle, Co. Antrim, June, 1891.—R. L. Praeger. *R. plicatus*, W. and N., as I should judge from the long styles and the petals; but if so a very luxuriant form approaching *R. sulcatus*, Vest. Barren stem and leaves necessary for determination.—W. M. R.

R. plicatus, W. and N. Biddulph, Staffs., July, 1890.—W. H. Painter. I feel a difficulty in naming these specimens. The short styles and distinctly stalked basal leaflets point to *nitidus*, yet perhaps on the whole the plant is as near or nearer to *plicatus*.—W. M. R.

Rubus sp.? near *Lindleianus*, Lees. Snaresbrook, Essex, Aug , 1891.—J. T. Powell. Unmistakeable *Lindleianus*, though rather weak.—W. M. R.

R. incurvatus, Bab. Criccieth, Carnarvon, July, 1890.—W. H. Painter. No doubt right, though the panicle from being exceptionally luxuriant looks laxer and broader than usual.—W. M. R.

R. incurvatus, Bab. Hedges, Finchley, June, 1890.—A. D. Hall. Is *R. rusticanus*, Merc., or not improbably *R. elongatus*, Merc., which may be reckoned as a variety of it.—W. M. R.

R. thyrsoideus, Wimm. Jordans, Bucks., July, 1891.—A. B. Hall. Certainly not *thyrsoideus*. Possibly *R. gymnostachys*, Genev. = *R. macrothyrsus*, Lange., but specimen too young. W. M. R.

R. pyramidalis, Kalt.? High Beech, Essex, August, 1891.—J. T. Powell. Yes, good *R. pyramidalis*, Kalt.—W. M. R.

R. pyramidalis, Kalt. Biddulph, Staffs., August 1889.—W. H. Painter. This is surely the same plant as Mr. Painter sent to the Club last year from Norton-in-the-Moors, labelled *R. danicus*, Focke. *R. pyramidalis*, Kalt., seems to me a better name for it, though it has an abnormally hairy stem for that, and it is hard to find a gland on the panicle-rachis.—W. M. R.

R. pyramidalis, Kalt. Horton, Staffs.—W. H. Painter. The same, I believe, as the Biddulph *pyramidalis*.—W. M. R.

R. melanoxylon, Müll. Horton, Staffs., August, 1891.—W. H. Painter. This is no doubt the same as Mr. Painter's Lask Edge plant sent to B. E. C. last year, labelled *R. melanoxylon*, Müll., Fide Dr. Focke, and with Prof. Babington's opinion added, I agree that is the name of the Lask Edge plant. It seems to me very near *R. pyramidalis*, Kalt., and a good deal unlike the Shirley plant which Dr. Focke named *R. melanoxylon* for Mr. Purchas.—W. M. R.

R. montanus, Wirtg.? Open Woods, Pilmoor, Yorks., August, 1891.—A. B. Hall. This is an interesting plant, but better materials are desirable, and especially mature panicles. It is certainly distinct from Bloxam's *Grabowskii* (Cadeby, Leic.), and agrees no better, I should say, with Focke's description of *R. montanus*, Wirtg., or *R. Grabowskii*, Weihe.—W. M R.

R. carpinifolius, W. and N.? Open woods, Pilmoor, Yorks., August, 1891.—A. B. Hall. Yes, I think *carpinifolius*, W. and N.—W. M. R.

R imbricatus, Hort.? Sowerby, near Thirsk, Yorks., August, 1891.—A. B. Hall. *R. corylifolius*, Sm.—W. M. R.

R. Maassii, Focke. Near Cleifiog, Anglesea, Oct., 1891.—J. E. Griffith. I do not think think this will do for *R. Maassii*, Focke, which has reflexed sepals, green, and white margined externally, and different panicles. I cannot name it. W. M. R.

R. villicaulis, Koehl. Towlasdale, Thirsk, Yorks., July, 1889. —A. B. Hall. Exactly *R. Lindebergii*, P. J. Müll.—W. M. R.

R. villicaulis, Koehl. Biddulph, Staffs., Aug., 1891.—W. H. Painter. Mixed, most of the pieces being *villicaulis*, but some *Sprengelii*, and others *carpinifolius*.—W. M. R.

R. villicaulis, Koehl. Rudyard, Staffs., Aug., 1890.—W. H. Painter. Yes. The strongly marked Midlands form *R. calvatus*, Blox.—W. M. R.

R. Sprengelii, Weihe. Wood, Bidston, Cheshire, Sept., 1881. —A. E. Lomax. Yes.—W. M. R.

R. thyrsiflorus, W. and N.? Edge of damp woods, Jordans, Bucks., July, 1890.—A. B. Hall. *R. rosaceus*, W. and N.—W. M. R.

Rubus sp.? Ludgate Plain, Epping Forest, Essex, August, 1891.—J. T. Powell. I suppose that this must certainly go to *R. rosaceus*, W. and N., though specimen sent is not typical in narrowness of leaf and panicle.—W. M. R.

Rubus sp.? Snaresbrook, Essex, Aug, 1891.—J. T. Powell. I cannot name this beautiful little plant, but it is rather like one I sent to Dr. Focke last year from Crowell Hill, Oxford, for which he suggested *R. saxicolus*, P. J. Müll, var.—W. M. R.

R. scaber, W. and N. Open woods, Pilmoor, Yorks., August, 1891.—A. B. Hall. Is *R. plicatus*, W. and M.—W. M. R.

R. Radula, Weihe, form. Biddulph, Staffs., August, 1891.—W. H. Painter. A curious form, perhaps best under *Radula*.—W. M. R.

R. infestus, Bab. Beckdale, Helmsley, Yorks., Aug., 1891.—A. B. Hall. Apparently a form of *R. Koehleri*, Weihe, in spite of the pink petals.—W. M. R.

R. infestus, Bab. Sowerby Lane, Thirsk, Yorks., Aug., 1891. —A. B. Hall. Apparently *R. dumetorum*, var. *ferox*. Material insufficient.—W. M. R.

R. emersistylus, P. J. Müll. Snaresbrook, Essex, Sept., 1891.—J. T. Powell. This may be *emersistylus*, Müll. (v. J. of Bot., 1878, pp. 175-6), which I do not yet understand, but it seems very different from *R. Bagnallii*, Blox., and *R. Briggsii*, Blox.—W. M. R.

Rubus sp., near *Lejeunii*, Weihe? Near Loughton, Essex, Aug., 1889.—J. T. Powell. I cannot name this, but should think it nearer the *scaber* group than *Lejeunii* —W. M. R.

R. longithyrsiger, Lees. Llanberis, August, 1888.—W. H. Painter. Mixed pieces? The panicle certainly does not belong to *longithyrsiger*.—W. M. R.

R. Guntheri, Weihe. Open woods, Pilmoor, Yorks., August, 1891.—A. B. Hall. Probably *Koehlerian*; certainly not *Guntheri* or *flexuosus*. The specimen is too imperfect.—W. M. R.

R. Bellardi, Weihe. Beechwood, Jordans, Bucks., July, 1890. —A. B. Hall. *R. flexuosus*, M. and L.—W. M. R.

R. Bellardi, Weihe. Damp copses, Jordans, Bucks., July, 1890.—A. B. Hall. Certainly not *Bellardi*. Specimen too immature.—W. M. R.

R. Bellardi, Weihe. Biddulph, Staffs., Aug., 1889.—W. H. Painter. Yes, a beautiful and luxuriant specimen.—W. M. R.

R. tuberculatus, Bab. Thickets, Jordans, Bucks., July, 1890.—A. B. Hall. A woodland form of *R. rosaceus*.—W. M. R.

R. rotundifolius, Blox. Towlasdale, Yorks., July, 1889.—A. B. Hall. Is *R. cæsius*, L.—W. M. R.

R. corylifolius, Sm., b. *conjungens*, Bab. Near Wake Valley pond, Epping Forest, Essex, Aug., 1891.—J. T. Powell. I suppose that this is right, but the panicle is exceptionally long, and has remarkably few glands.—W. M. R.

R deltoideus, P. J. Müll. Roadside, Sowerby, Yorks., Sept., 1891.—A. B. Hall. Some abnormal *corylifolius* form; it looks like a hybrid.—W. M. R.

Rubus sp.? Deer Park fence, Knock Drin, Co. Westmeath, July, 1891.—H. L. Levinge. Certainly *R. cæsius*, L., and apparently the var. *ligerinus*, Genev. (*ulmifolius*, Bab.); but barren stems and leaves are wanted for determination.—W. M. R.

R. cæsius, L., var. *agrestis*. Woods, Beckdale, Helmsley, Yorks., Aug., 1891.—A. B. Hall. Rightly named, I believe, but the panicle is more glandular and aciculate than is usual in var. *umbrosus*, Reichb. (*agrestis*, Bab.).—W. M. R.

R. cæsius, L., var. *serpens*, Godr.? Beckdale, Helmsley, Yorks., Aug., 1891.—A. B. Hall. I do not know var *serpens* (*hispidus*, Bab.), and should have been content to put this under var. *umbrosus*.—W. M. R.

Rosa mollis, Sm., c. *pseudo-rubiginosa*, Lej Rievaulx, Yorks.—A. B. Hall. *R. scabriuscula* with globose fruit.—J. G. B.

R. rubiginosa, L., var. *sylvicola*, D. and R. Smalesworth, Yorks. A. B. Hall. Is *R. Sabini* var.—J. G. B.

R. micrantha, Sm? Woods, Weston-super-Mare.—E. S. Gregory. Is *R. sepium*, form.—J. G. B.

R. micrantha, Sm., var. *Briggsii*, Baker? Quarry, near Weston-super-Mare.—E. S. Gregory. Probably *R. sepium*.—J. G. B.

R. canina, L., b. *surculosa* Woods, Bradley, Shirley, S. Derby.—W. R. Linton. Not *surculosa*, but between *sphærica* and *dumalis*.—J. G. B.

R. sphærica, Gren. Rudyard, Staffs.—W. H. Painter. Yes.—J. G. B.

R. frondosa. Woods, Thirsk, Yorks.—A B. Hall. Truly *frondosa* as labelled.—J. G. B.

R. dumetorum, Thuill. Biddulph, Staffs.—W. H. Painter. Is *R. frondosa*.—J. G. B.

R. andegavensis, Bast. Shirley, S. Derby.—W. R. Linton. Yes.—J. G. B.

R. andegavensis, Bast. Woods, Weston-super-Mare.—E. S. Gregory. Yes.—J. G. B.

R. collina, Jacq. Shirley, S. Derby.—W. R. Linton. Is var. *Koscinciana*.—J. G. B.

R. Koscinciana? Epping Forest, Essex.—J. T. Powell. Is *R. stylosa*.—J. G. B.

R. Bakeri, Déségl. Boltby Moors, Thirsk, Yorks.—A. B. Hall. Comes near *Bakeri* but not quite matches it.—J. G. B.

R. bibracteata, Bast. Boxted, Essex.—J. D. Gray. True *bibracteata*.—J. G. B.

R. bibracteata, Bast. Beckdale, Yorks.—A. B. Hall. Typical *arvensis*.—J. G. B.

Sedum rupestre, Huds. Rocky shore of lake, near Antrim, June, 1891.—R L. Praeger *S. rupestre*, Sm. = *S. elegans*, Lej. Hudson's plant included this and *S. Forsterianum*, Sm.—A. B.

Daucus gummifer, Lam. L'Ancresse, Guernsey, Aug., 1891.—M. E. Dawber. The plant so called, but I do not think it is what Lamarck intended. The only specimen I have seen which

I should name as his plant was gathered in Portland Isle by Mr. H. T. Mennell, of Croydon.—A. B.

D. gummifer, Lam. Near Torquay, S. Devon, June, 1888.—C. Waterfall. See note on preceding plant, but some of Mr. Waterfall's specimens belong to *Trinia vulgaris*.—A. B.

Cornus sanguinea, L., var.? Knock Ross, Co. Westmeath, Sept., 1891.—H. L. Levinge. The only difference I can see from the type is that the Irish plant has larger leaves and straighter pedicels.—A. B.

Galium erectum, Huds. Near Thirsk, Yorks., Oct., 1991.—A. B. Hall. May be, but too poor to name with certainty. I doubt it.—A. B.

G. Mollugo, L., b. *insubricum*, Gaud. Reigate Hill, Surrey, August, 1891.—C. E. Salmon. This seems to be *G. Mollugo*, L., *a latifolium*, Wallroth, Sch. crit., p. 55, 1822, = *G. latifolium*, Sonder, Fl. Hamb. p. 85, 1851, = *G. insubricum*, Gaud.—A. B.

G. Witheringii, Sm. Aberystwyth, July, 1891.—W. H. Painter. Is *G. palustre*, L., var. *Witheringii*, Hook.—A. B.

Valeriana Mikanii, Wats. Knypersley Park, Staffs., August, 1891.—W. H. Painter. I should have named this *V. sambucifolia*.—A. B.

Cnicus arvensis, Hffm., c. *setosus* (Bess.). Four Elms, near Edenbridge, Kent, W., Sept., 1891.—C. E. Salmon. I am unable at present to refer this to its proper varietal name. Besser published it as a species.—A. B.

Hieracium sp. Upper Wharfedale, Yorks., Sept., 1891.—C. Cotton. Is *H. vulgatum*, Fr.—F. J. H. (1 and 2).

Hieracium sp. Upper, Wharfedale, Yorks., Sept., 1891.—C. Cotton. These two specimens are the same as what I have described under the name of *H. hibernicum* from Donegal and Mourne Mts. They are the only specimens I have seen from Great Britain.—F. J. H. (3).

Hieracium sp. Upper Wharfedale, Yorks., Sept., 1891.—C. Cotton. *H. tridentatum*, Fr.—F. J. H. (4).

Hieracium sp. Upper Wharfedale, Yorks., Sept., 1891.—C. Cotton. May perhaps best be placed under *cæsium* for the present.—F. J. H. (5).

Hieracium sp. Upper Wharfedale, Yorks., Sept., 1891.—C. Cotton. Is *H. murorum*, form.—F. J. H. (6).

Hieracium sp. Cheddar, Som., August, 1891.—T. A. Cotton. Is *H. vulgatum*, Fr.—F. J. H. (7).

Hieracium sp. Fossdale, Hawes, Yorks., August, 1889.—T. A. Cotton. Is *H. Eupatorium*, Guisb.—F. J. H. (8).

Hieracium sp. Fossdale, Hawes, Yorks., Angust, 1889.—T. A. Cotton. Is *H. auratum*, Fr.—F. J. H. (9).

Hieracium sp. Gayle, Hawes, Yorks., August, 1889.—T. A. Cotton. Is *H vulgatum*, Fr.—F. J. H (10).

Hieracium sp. Midmossdale, Hawes, Yorks., August, 1889.—T. A. Cotton. Is *H. Eupatorium*, Guisb.—F. J. H. (11.)

Hieracium sp. Midmossdale, Hawes, Yorks., August, 1889.—Is *H. rigidum*, Fr., F. J. H. (12).

Hieracium auratum, Fr. Rocks, Mourne Mountains, July, 1890.—R. L. Praeger. Yes.—F. J. H.

Hieracium sp Quarry spoilbank, Conlig, Co. Down, July, 1891.—R L. Praeger. *H. vulgatum*, Fr.—F. J. H.

H flocculosum, Back. Rocks by stream, Tullymore Park, Co. Down, July, 1891.—R. L. Praeger. Yes.—F. J. H.

H. pallidum, Biv. Crags, Teesdale, Yorks., July, 1891.—A. B. Hall. Is *H. bifidum*, Rit..—F. J. H.

H. vulgatum, Fr.? Granite rocks, Mourne Mountains, July, 1891.—R. L. Praeger. I am not prepared to name it yet.—F. J. H.

H. vulgatum, Fr., var. *sciaphilum*. Mow Cop., Staffs., 1891.—W. H. Painter. A *vulgatum* form. Further I am not prepared to say.—F. J. H.

H. diaphanoides, Lindeb. Bethesda, Carnarvon, July, 1890.—F. F. Linton. In this plant the hairs seem entirely those of *vulgatum*, whilst the phyllaries are too floccose for those of *diaphanoides* and bear simple hairs. I think it is a state of *H. vulgatum*.—F. J. H.

H. umbellatum, L. Woodside Colliery, Biddulph, Staffs., Sept., 1891.—W. H. Painter. Yes.—F. J. H.

H. Friesii, Hartm. comm., A. Bennett. This may be taken as partly the *H. gothicum*, Fr., of Backhouse. It seems to be widely distributed in Scotland, southwards from the Shetlands. I have seen it from Shetland, Sutherland, East Inverness, S. Aberdeen, Stirling, and Yorkshire.—A. B.

Lactuca saligna, L. Little Gordale, Malham, Yorks., Sept., 1887.—C. Waterfall. *L. muralis*, Fres.—A. B.

Campanula rotundifolia, L., luxuriant form? Chaulton, near Luton, July, 1891.—D. M. Higgins. Certainly *rotundifolia*; the flowers are rather larger than usual, though only one third the size of the var. *speciosa*, More, from Ireland.—A. B.

Statice occidentalis, Lloyd. Gt. Orme's Head, Sept., 1891.—G. E. Martindale; *ibid*. August, 1891.—A. E. Lomax.

S. auriculæfolia, Vahl. Ladram Bay, S. Devon, July, 1891.—C. Cotton.

S. auriculæfolia, Vahl. Near Baldoyle Railway Station, Co. Dublin, August.—H. L. Levinge.

S. auriculæfolia, Vahl. Woolacombe, N. Devon, Aug. 1891.—A. Crosfield. All the above *Statices* belong to the same form, they are the *S. binervosa*, G. E. Sm., var. *intermedia*, Syme. Most, if not all, the West of England plants seem this form ; it has much thicker heads of flowers than the East Coast plant. *Statice auriculæfolia*, Vahl., is *S. densiflora*, Gussone, according to Nyman. Mr. Bentham, in the first edition of his Handbook, referred our plant to Vahl., but in his second edition he refers it to his *S. auriculæfolia*, Bentham (Cat. pl. Pyrénées et Bas Languedoc, p. 163, 1826); but Nyman refers this to *S. lychnidifolia*, Giraud, Ann. Sc. Nat., ser. II., p. 18, which is not known as a British plant. I have not been able as yet to see Mr. Bentham's specimens, but he probably considered this last and our *occidentalis* as varieties of one species.—A. B.

Primula veris × *vulgaris*. Towlasdale, Thirsk, Yorks., May, 1891.—A. B. Hall. The Common Oxlip, not the Cowslip Oxlip.—A. B.

Veronica scutellata, L., v. *parmularia*, Tur. and Poit. Coot Lake, Gormire, near Thirsk, Yorks., July, 1887.—A. B. Hall. Mr. Druce, in J. of Bot., considers this the var. *pubescens* of Gray (Nat. Acc. of Brit. Plants, 1821, p. 207), but his name was under *V. angustifolia*, Gray. I do not understand Mr. Druce's reference to Gray (1821), as though the work of Turpin and Poiteau (Flore Parisienne, 1808), was unfinished still that of 1813 remains ; anyhow Gray's name is untenable. Schumacher in his Enum. pl. Sâellandiâe (1803) makes this the type of the species, as *a. villosa ;* but in England it is certainly the rarer form.—A. B.

Mentha piperita, Huds., v. *officinalis* (Hull). Near Welton, Yorks., E., Sept., 1891.—C. Waterfall. This should stand as *M. piperata*, Huds., a. *officinalis* (Sole). Hull described it as a species, Sole as a variety.—A. B.

M. arvensis, L., var. Horton, Staffs., August, 1890.—W. H. Painter. I should call this a *sativa* form ; the calyx is not truly campanulate or the teeth deltoid.—A. B.

Plantago lanceolata, L., v. *Timbali*, Jord. ? Clover field, Groton, Suffolk, Aug., 1891.—H. P. Reader. Probably so, but difficult to say without the basal leaves and root crown.—A. B.

Salicornia radicans, Sm., Porchester, Hants., August, 1891.—J. Vaughan. *S. herbacea*, L., var. *ramosissima*, Woods, not *S. radicans*, Sm.—A. B.

Salix sp.? Wickenstone, Biddulph, Staffs., May and August, 1891.—W. H. Painter. A good intermediate form of *S. aurita* and *S. cinerea* (*S. lutescens*, Kern.), both fruit and leaves showing well the presence of the two parents. The style and stigmas are larger than is usual in either *S. aurita* or *S. cinerea;* rather a frequent feature in this hybrid.—E. F. L.

S. nigricans, "Sm.," v. *Andersoniana* (Sm,). Clova; July, 1889.—E. F. Linton. To me this is nearer var. *hirta*.—A. B.

S. repens, L., var. *fusca* (L.). Railway Bank, near Pilmoor, Yorks., June, 1891.—C. Waterfall. Not *fusca*, but too poor to name.—A. B.

Epipactis media, Fr. Thedden., Hants., August, 1889.—J. Vaughan. No doubt the plant so named in Britain, but whether really the plant of Fries I am unable to vouch for.—A. B.

E. atro-rubens, Schultz. Near Ballyryan, Co. Clare, July, 1891.—P. B. O'Kelly, ex. herb. H. L. Levinge. This is generally so referred, but I prefer the name *E. ovalis*, Bab., as I am by no means sure it is the plant of Schultz.—A. B.

Orchis latifolia, L. Limbury, near Luton, June, 1891.—D. M. Higgins. If so, very poor.—A. B.

Potamogeton crassifolius, Fryer, comm. A. Bennett. This was described by Mr. Fryer in J. of Bot., 1891; he considers it to be a hybrid between *P. natans* and *P. Zizii*, Roth. It will stand in Lond. Cat. next *P. fluitans*.—A. B.

P. rufescens, Schrad. Lake, Ballynahinch, Co. Down, August, 1887.—R. L. Praeger. *P. alpinus*, Balbis (1804) is the proper name of this plant, as it is the oldest at present known.—A. B.

P. rufescens, Schrad. In the Canal at Odiham, N. Hants., June, 1880.—Miss C. E. Palmer. Seemingly a semi-sterile state or else the date too early for fruiting. I have noticed a similar state in the same canal just within the Surrey border.—A. B.

P. lanceolatus, Sm. Cahira river, near the sandhills of Murrough, Co. Clare.—P. B. O'Kelly, Sept., 1891, ex. herb. H. L. Levinge. Mr. Levinge sent this to Mr. A. G. More, and he named it as above. It is a most interesting addition to the Irish flora (cf. Stewart and Corry's Fl. N. E. Ireland, 1888, p. 302, for its reported occurrence in Antrim). I have been in correspondence with Mr. A. G. More, Mr. Levinge, and Mr.

Scully respecting this station, and the consensus of opinion seems to be "that it may be accepted." However, after what has occurred it will be well if the station is verified by some independent botanist. Since the above was written Mr. Levinge has seen the plant *in situ.*—A. B.

Zannichellia brachystemon, Gay. Brackish ditch, Welton, Yorks., E., June, 1891.—C. Waterfall. Not good enough to name such a critical species as this.—A. B.

Scirpus parvulus, R. and S. Littlesea, Studland, Dorset, Sept., 1887.—F. H. Ward. This has an earlier name, *S. nanus*, Spreng. (Pug. 1, 4, 1813. This name had been previously used by Poiteau (Ency., 6, 759, 1804, teste Jackson, J. of Bot., 1887, p. 335), but that is now sunk in *Fimbristylis argentea*, Vahl. According to some American botanists this name will be invalidated because it has been used by Poiteau under the genus before. Will the general botanist be tied by such rules, if so, does he appreciate the work entailed thereby? Whilst of little if any use in advancing the science they must disgust many by their inconsistency.—A. B.

Carex paradoxa, Willd. Stoke Ferry, Norfolk, July, 1891.—W. T. Cross. May be, but specimens are very poor. It occurs in great abundance and fine at Ranworth.—A. B.

C. bracteata, Syme. Malvern Link, Worc., June, 1887.—C. Waterfall. Syme called this *C. ovalis* var. *bracteata*, not a species.—A. B.

Alopecurus fulvus, Sm. Pond near Groton; Suffolk, Aug., 1891.—H. P. Reader. The third station for the county, and in V. C., West Suffolk.—A. B.

Agropyron pungens, R. and S. Dock embankment wall, Hull, July, 1891.—C. Waterfall. *A. repens*, L., var. *littorale.*—A. B.

Equisetum variegatum, Schleich. Wynch Bridge, Teesdale, Aug., 1889.—T. W. Woodhead. Var. *arenarium.*—A. B.

Chara sp. Penygent, Aug., 1890.—C. Cotton. *C. vulgaris* var. *longibracteata.*—A. B.

TREASURER'S BALANCE SHEET FOR 1891.

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Praeger, R. L.	0	5	0
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Roberts, Dr. J.	0	5	0
Steuart, Capt. A.	0	5	0
Thompson, H. S.	0	5	0
Vowell, R. P.	0	5	0
Ward, F. H.	0	5	0
Waterfall, C.	0	5	0
Woodhead, T. W.	0	5	0
	£12	7	6

For 1892.

Geldart, H. D.	0	5	0
Levinge, H. L.	0	5	0
Steuart, Capt. A.	0	5	0

THE

NINTH ANNUAL REPORT

OF THE

WATSON

Botanical Exchange Club,

1892-93.

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"Labor Omnia Vincit"

YORK:
William Sessions, Printer, 15 & 16, Low Ousegate.
1893.

REPORT FOR 1892–1893.

The distributor has received 2156 specimens this season, contributed by 24 members. This shews a considerable falling off in point of numbers from previous years, though the quality of the plants is above the average. On the *Rubi* Mr. Moyle Rogers writes, "it is a real pleasure to me to be able to say that taken as a whole this set of specimens shews a distinct improvement in the care with which they have been selected and pressed." It seems a pity that some members should content themselves with sending so very few examples of plants which might surely be gathered in greater quantity without difficulty or danger of extermination. In several instances the material sent has been insufficient to give the referee a fair chance of passing an opinion, whilst nothing whatever remains over for distribution.

The Club desires to tender its thanks to Mr. A. Bennett, the Rev. W. Moyle Rogers, and Messrs. J. G. Baker and F. J. Hanbury for the kind trouble they have taken as referees; also to the Rev. E. F. Linton for several interesting notes.

The plants received are here acknowledged, with the numbers reckoned as sheets of specimens.

Mr. A. Bennett, F.L.S.	38
Mrs. Cotton	126
Mr. A. J. Crosfield	64
Miss M. E. Dawber	46
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Rev. J. D. Gray, M.A.	37
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Miss D. M. Higgins	29
Mr. H. Levinge, J.P., D.L.	356
Rev. E. F. Linton, M.A.	89
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H. P. Reader, Distributor for 1892-93.

Ranunculus sp.? Stagnant pool, Moat Wood, nr. Thirsk, Yorks., June, 1892.—A. B. Hall. *R. heterophyllus*, Bab., A. B.

R. heterophyllus, Web. Pond near Woodend, Thirsk, Yorks., May, 1891.—A. B. Hall. *R. peltatus*, Schrank.—A. B.

R. Drouetii, Godr.? Stagnant pond, the Holmes, Thirsk, Yorks., May, 1891.—A. B. Hall. Correct I believe; but why "Godron"? Schultz seems to have published it in 1847.

R. cambricus, A. Bennett. Coron Lake; J. E. Griffith, June, 1892. Correct. But Herr Freyn thinks this is the *R. carinatus* of Schur., with which determination I cannot agree. I prefer, however, so to call it, as Herr Freyn's great knowledge of the genus entitles him to have full deference paid to his naming, but I hope to convince him he is wrong.—A. B.

R. sp.? Hickling, Norfolk, July, 1892.—C. Cotton. This is *R. Drouetii*, F. Schultz.—A. B.

R. trichophyllus, Chaix. Llandudno, June, 1891.—J. L. Williams. Correct, I believe.—A. B.

R. trichophyllus, Chaix. Lough Owel, Co. Westmeath, August, 1892.—H. L. Levinge. Correct, I believe.—A. B.

Nasturtium officinale, R. Br., var. *siifolium*, Koch. Marwood, N. Devon, July, 1892.—W. H. Painter. Very small for this usually large form of *N. officinale*.—A. B.

Barbarea intermedia, Bor. Seedfield, near Thirsk, Yorks., May, 1892.—A. B. Hall. Rightly named, I think.—A. B.

Cochlearia grœnlandica, Sm. Alpine rills, alt. 2—3000 ft., Ben-y-gloe, Perth., July, 1892.—A. B. Hall. Is *C. officinalis* var. *alpina* of Bab., Man. ed. 1 p. 27 (1843), which is the same as *C. grœnlandica*, Sm. (not Linn.) of Engl. Fl. vol. 3 p. 175 (1829).—A. B.

C. officinalis, L., v. *alpina* (Wats.), Bab. Upper Teesdale, Westm., June, 1892.—A. Crosfield. Yes.—A. B.

Diplotaxis muralis, D. C., var. *Babingtonii*, Syme. Sandy banks between Kilbarrock and Sutton, Co. Dublin, June, 1892.—H. L. Levinge. Very poor examples, if really Syme's plant.—A. B.

Id. Edenbridge, Kent, W., Aug., 1892.—E. S. Salmon. Certainly so.—A. B.

Thlaspi alpestre, L., var. *occitanum*, Jord., Wensleydale, Yorks., Aug., 1892.—C. Cotton.

Id. Upper Teesdale, Westm., June, 1892.—A. J. Crosfield. Both plants seem rightly named, but the relative length of the styles and apical lobes of the fruit seem to me to vary.—A. B.

Cerastium arcticum, Lange. ? Snowdon, August, 1892.—J. L. Williams. Impossible to decide a critical plant on such material. —A. B.

Stellaria umbrosa, Opiz. Malvern, Worc., June, 1891.—R. F. Towndrow. In English Botany, ed. 3 vol. 2, p. 95, Dr. Boswell Syme quotes Babington's Manual Brit. Bot., ed. 5, p. 54; but the name and description appear in the 1st ed. of the Manual, p. 48 (1843). Babington there gives the authority as "Opitz," which is an error, the proper spelling being Opiz. Opitz was a doctor at Prague contemporary with Opiz, who named *Mentha Opitziana* after him in *Nomenclator Botanicus*, p. 72, 1831. But the plant sent cannot be this var. of *S. media* as it has the seeds only granulated on the disc, though they are strongly tubercled round the margins. In true *umbrosa* they are "closely covered with acute tubercles, which are star-shaped at the base" (Syme). I call this *S. neglecta*, Weihe = *S. media*, Vill., var. *major*, Meyer, Chloris Hanoverana, p. 197, 1836; but Koch seems to have published this in his Synop. Flor. Germ. et Helv., ed. 1 p. 1 p. 118 (1835) as var. *major*. The proper authority is, however, *S. media*, Cyrillo, var. *major*.

Geranium var. ? Growing freely among bracken on Dartmoor, May 31st, 1892.—Mrs. Lomax. Is *G. macrorhizon*, L., a native of S. and S.E. Europe, from Italy and Austria eastwards; found also, but as a probable introduction, in Germany, Belgium, and Norway. It is quite unlikely that this plant should have been overlooked in the past, with its showy flowers; it could not have been easily mistaken for *G. pratense* or *G. sylvaticum* (the latter not known from Devon) by any botanist; and must therefore be regarded as an escape, though found in a situation which it might naturally inhabit. It may readily be distinguished from *G. pratense* and *G. sylvaticum*, its nearest British allies, by its elongated scaly rootstock, the much broader less divided lobing of its leaves, by the much broader sepals with rounded apex and abrupt mucro, and by the long slender style.—Edward F. Linton.

Lotus corniculatus, L., var. *crassifolius*, Pers. Rocky ground near the sea, Torquay, June, 1888.—C. Waterfall. May pass as such.—A. B.

Rubus Idæus, L., var. *anomalus*, Arrhen. (= var. *Leesii*, Bab.). Roadside between Poole and Longham, Dorset, June and Sept., 1892.—E. F. Linton. Growing, as I believe it commonly does, with the type. New to the county when discovered in 1891 by the Rev. W. R. Linton. Prof. Babington discusses the identity of var. *Leesii* and var. *anomalus* in Brit. Rubi, and opposes their union on the ground of the difference in the length of the petiole and the shape and base of the terminal leaflet. Dr. Focke unites the two, I am inclined to think rightly.—E. F. L.

R. nitidus, W. and N., var. ? *integribasis*, P. J. Muell. Kinson, Dorset, July and Sept., 1892.—E. F. Linton. Dr. Focke regards this as *integribasis*, but it is queried, because there has been so far no means of seeing Mueller's type.—E. F. L.

R. rhamnifolius dumosus, Focke. Near Bangor, Aug, 1889.—J. E. Griffith. I suppose *R. dumosus*, Lefr., is meant. The specimens are insufficient for determination, but they rather suggest *rhamnifolius* than *dumosus* to me.—W. M. R.

R. nemoralis, var. *pulcherrimus* ? High Beech, Essex, Aug., 1892.—J. T. Powell. Luxuriant specimens of typical *pulcherrimus*, Neum., as I understand it; but *nemoralis* cannot, I now believe, be retained as the name for the aggregate. (v. J. of B., 1893, p. 44).—W. M. R.

R. sp. ? Warley Common, Essex, Aug., 1892.—J. T. Powell. Near *R. pulcherrimus*, Neum., but I cannot quite match it.—W. M. R.

R. villicaulis, Koehl. ? Warley Common, Essex, Aug., 1892.—J. T. Powell. I think undoubtedly this, though the leaflets are narrower than usual.—W. M. R.

R. erythrinus, Genev. Middle Marwood, N. Devon, July 24th, 1892.—W. H. Painter. Yes, though with longer denser hairs than usual on panicle rachis.—W. M. R.

R. rusticanus, Merc. ? Cemetery Lane, Thirsk, Yorks., Sept., 1892.—A. B. Hall. I think this may go to *R. elongatus*, Merc., as a var. under *rusticanus*.—W. M. R.

R. sp. ? Borough Hill, Daventry, Northants., Aug., 1892.—J. T. Powell. One of the *thyrsoideus*-like forms, of which we seem to have several in England. The true *thyrsoideus*, Wimm., has much weaker panicle prickles, and a furrowed stem.—W. M. R.

R. macrophyllus, W. and N. Near Barracks, Warley, Essex, Aug., 1892.—J. T. Powell. Yes, with exceptionally strong panicle.—W. M. R.

R. macrophyllus, W. and N. Middle Marwood, N. Devon, July 29th, 1892.—W. H. Painter. Yes, a large flowered form approaching var. *Schlechtendalii*, W. and N. And I should say the same of a somewhat different plant sent by Mr. J. E. Griffith from Penfeddcoed Rd., Bangor (Aug. 1892), and named by him *R. Bloxamii*, Lees.—W. M. R.

R. carpinifolius, W. and N. ? Quarry, Wass Bank, Coxwold, Yorks., Sept., 1892.—A. B. Hall. *R. leucostachys*, Schleich.—W. M. R.

R. macrophyllus, W. and N. ? Flazendale and Old Byland Ghyll, Thirsk, Yorks., Sept., 1892.—A. B. Hall. Good *R. pallidus*, W. and N. (non. Bab.) though with smaller petals than usual.—W. M. R.

R. longithyrsiger, Lees. Near Llanberis, July, 1892.—J. E. Griffith. Yes.—W. M. R.

R. rosaceus, W. and N., "Woodland form." Thickets, Jordans, Bucks.—A. B. Hall. This is *rosaceus* var. *infecundus*, W. M. Rogers. (v. J. of B., 1892, p. 338). I have seen Bucks. specimens of it before, through Mr. Druce.—W. M. R.

R. Hystrix, Weihe? Warley Common, Essex, Aug., 1892.—J. T. Powell. Perhaps under *Hystrix*, but the material is insufficient, and seems exceptionally weak.—W. M. R.

R. sp. ? High Beech, Essex, July, 1892.—J. T. Powell. I cannot name this, nor even feel sure, without seeing more of it, in which of the glandulose groups it must find a place.—W. M. R.

R. sp.? (apparently under *dumetorum*). Farley Common, Essex, Aug., 1892.—J. T. Powell. I think certainly under *dumetorum*, W. and N., and very near to var. *ferox*, Weihe, though differing somewhat in armature and terminal leaflet. A beautiful plant.—W. M. R.

R. corylifolius, Sm., var. *sublustris* (Lees). Ashford, N. Devon, July, 1892.—W. H. Painter. Yes.—W. M. R.

R. corylifolius, Sm., var. Braunton Barrows, N. Devon, July, 1892.—W. H. Painter. I well remember seeing this beautiful *Corylifolian* in masses in the deep sand by R. Taw on Braunton Burrows. It is, I think, good *sublustris*, the locality being sufficiently peculiar to account for the slight variation from type in prickles, panicle, and leaf texture.—W. M. R.

R. corylifolius, Sm., var. Heaton, N. Devon, July, 1892.—W. H. Painter. Two sheets of different plants thus labelled. (1) The stem pieces look nearest to *R. scabrosus*, P. J. Muell. The panicle is imperfectly developed but may belong to the same. It seems shade grown. (2) Looks like *R. cæsius* × *corylifolius*.—W. M. R.

R. leucostachys, Sm.? Flazendale, Thirsk, Yorks., Sept., 1892. —A. B. Hall. *R. cæsius*, L. A very prickly form, which may perhaps go under var. *arvensis*, Wallr. (*ulmifolius*, Bab.)—W. M. R.

R. Bellardi, Weihe.? Lane up Dalton Rd., Thirsk, Yorks., Aug., 1892.—A. B. Hall. Mixed pieces; the panicle belonging apparently to *R. villicaulis*, Koehl., and the stem to *R. dumetorum*, W. and N.—W. M. R.

Dryas octopetala, L., var. *pilosa*, Bab. Cronkley Fell, Yorks., June, 1892.—A. J. Crosfield. It seems impossible to define this as a variety, and according to Mr. N. E. Brown in Eng. Bot. Supp. p. 127. Prof. Babington is now of the same opinion.—A. B.

Poterium muricatum, Spach.? Clover field, Woodchester, Glos., W., July, 1892.—H. P. Reader. *P. muricatum* var. *platylophium*, Syme. = *P. platylophium*, Jord.—A. B.

Rosa tomentosa, Sm.? Wass Moor, near Coxwold, Yorks., Sept., 1892.—A. B. Hall. Passed without comment by Mr. Baker.—A. B.

R. tomentosa, Sm., var.? Near Woodcock, Thirsk, Yorks., Sept., 1892.—A. B. Hall. The var. *scabriuscula* (Sm.).—J. G. B.

R. tomentosa, Sm., var. *subglobosa* (Sm.). Wensleydale, Yorks., Aug., 1892.—C. Cotton. Passed by Mr. Baker.—A. B.

R. rubiginosa, L.? Hawbank, Wensleydale, Aug., 1892.—C. Cotton. Passed by Mr. Baker.—A. B.

R. agrestis, Sav., var.? Near Marwood, N. Devon, July, 1892.—W. H. Painter. *R. tomentosa*, not *agrestis*.—J. G. B.

R. sp.? Moat Wood, Thirsk, Yorks, June, 1892.—A. B. Hall. Is *R. canina*, L., var. *lutetiana* (Lem.).—J. G. B.

R. sp.? Pass of Killiecrankie, Perth., July, 1892.—A. B. Hall. Is *R. canina*, L., var. *arvatica*, Baker.—J. G. B.

R. canina, L., var. *sphærica*, Gren. Coxwold, Yorks., Sept., 1892.—A. B. Hall. The var *arvatica*, Baker.—J. G. B.

R. canina, L., var. *dumalis*, Bechst. Sowerby, Thirsk, Yorks., June, 1891.—A. B. Hall. Passed by Mr. Baker.—A. B.

R. canina, L., var. *frondosa*, Steren. Wensleydale, Yorks., Aug., 1892.—C. Cotton. Also from Wood End, Thirsk, Yorks., Sept., 1892.—A. B. Hall. And Marwood, N. Devon, July, 1892. —W. H. Painter. All three passed by Mr. Baker.—A. B.

R. canina, L., var. *arvatica*, Baker. Wensleydale, Yorks., Aug., 1892.—C. Cotton. Passed by Mr. Baker.—A. B.

R. canina, L., var. *dumetorum*, Thuill. Hawbank, Wensleydale, Yorks., Aug., 1892.—C. Cotton. The two pieces sent are not the same plant, one is *frondosa*, the other *lutetiana*.—J. G. B.

R. canina, L., var. *collina*, Jacq. Marwood, N. Devon, July, 1892.—W. H. Painter. Just the var. *Koscinciana* (Besser.).—J. G. B.

R. canina, L., var. *Koscinciana* (Besser.). Wensleydale, Yorks., Aug., 1892.—C. Cotton. Passed by Mr. Baker.—A. B.

R. canina, L., var. *Reuteri*, Godet. Wensleydale, Yorks., Aug., 1892.—C. Cotton. Passed by Mr. Baker.—A. B.

R. canina, L., var. *Watsoni*, Baker. Wensleydale, Yorks., Sept., 1892.—C. Cotton. Leaves very slightly compound, between *coriifolia* and *Watsoni.*—J. G. B.

Pyrus Aria, Sm. "Differing towards *latifolia*, Syme." Nightingale Valley, Clifton, Som., June, 1892.—Mrs. Lomax. In what way do these specimens differ in the direction of *latifolia?* The nervation is just that of *Aria*, the tomentum of the leaves may be slightly greener, but I have seen *Aria* with just such leaf-tomentum; the cutting of the leaves is certainly that of *Aria*,—the only point I am able to see is that the base of the leaves is slightly more tapering than is usual in *Aria.* The label refers one to White's "Flora of Bristol," p. 178, unfortunately I write without access to that Flora, none the less I can only name this sp. *P. Aria.*—A. B.

P. scandica, Syme. Near Thirsk, Yorks., July, 1892.—A. B. Hall. Notwithstanding Dr. Boswell's account of this in the Exchange Club Report, and that by Mr. N. E. Brown in Eng. Bot. Supp., I doubt much if a large proportion of botanists can name their specimens with any satisfaction to themselves. Mr. Brown names the plant called by Dr. Boswell *P. latifolia, P. rotundifolia*, Bechstein, and that called *P. scandica*, "in part" *P. rotundifolia*, Bech., var. *decipiens*, N. E. Brown. And a part of *P. scandica*, Boswell, *P. intermedia*, Ehrhart. Now doubtless there is not a great deal of difficulty in separating *P. eu-Aria* from *P. intermedia*, but when one comes to *P. rotundifolia* (*latifolia*) and *P. intermedia* then comes the difficulty. In fact I have seen on trees of *P. eu-Aria* leaves so like some of the figures of *P. rotundifolia (latifolia)* that except for number of veins and whiteness underneath they were almost undistinguishable. To my eyes Mr. Hall's Thirsk plant cannot be separated from *P. rotundifolia* (*latifolia*), var. *decipiens*, judging by Minehead specimens so named.—A. B.

Saxifraga cæspitosa, L. Ben Lawers, alt. 3500 ft., July, 1892.—A. B. Hall. Certainly not *cæspitosa*, L., of Iceland and Greenland. Sepals much too acute, and there is plain evidence of the barrren shoots which would elongate. So far as can be judged from the one poor example it may be *S. sponhemica.*—A. B.

S. sponhemica, Gmel. Ben Lawers, alt. 3500 ft., July, 1892.—A. B. Hall. In what does this differ from the specimen named "*S. cæspitosa*, L.," gathered on the same mountain by Mr. Hall? I fail to see.—A. B.

S. hypnoides, L. Y Glyder Fawr., Carn., July, 1892.—J. L. Williams. Probably correct.—A. B.

S. hypnoides, L. Upper Teesdale, Westm., July, 1892.—A. J. Crosfield. I believe correct.—A. B.

Callitriche vernalis, Koch. Near Valley, Anglesey, Sept., 1892.—R. W. Phillips. Of the two specimens sent me one is *C. hamulata*, Kütz., and the other *C. autumnalis*, L.—A. B.

Circæa alpina, L. Hedgebanks, Coniston, L. Lancs., Aug., 1891.—C. Waterfall. I think this is rather *C. lutetiana*, var. *intermedia*, L. C.—A. B.

Galium erectum, Huds. Railway bank, Coxwold, Yorks., Sept., 1892.—A. B. Hall. Specimens so very untypical that it is impossible to say.—A. B.

G. palustre, L., var. *elongatum*, Presl. Edge of Lake, Knock Drin, Co. Westmeath, Aug., 1892.—H. L. Levinge. Presl. published this as a species in his Deliciæ Pragenses, p. 119 (1822). Hooker makes it a var. of *palustre*, Babington calls it a "form," while Syme in Eng. Bot. makes it the type of the species, as "a. *elongatum*." Who first published it as a var. after 1822 I am unable at present to say.—A. B.

G. uliginosum, L., var.? Wet field, Woodchester, Glos., W., July, 1892.—H. P. Reader. New record for Vice-County W. Gloster. This may be the var. *strictum* of Meyer (Chloris Hanoverana, p. 363, 1836), but I have seen no specimen of Meyer's plant.—A. B.

Solidago Virgaurea, L., var. *angustifolia*, Gaud. Ledges of rock, Grisedale Tarn, Aug., 1891.—C. Waterfall. Probably correct.—A. B.

S. Virgaurea, L., var. *cambrica*, Huds. Snowdon, Aug., 1892.—J. L. Williams. Very luxuriant examples.—A. B.

Picris hieracioides, L. Tolgarth, Brecon, Aug., 1892.—R. W. Phillips. Very luxuriant. Did not this grow under some special conditions? I have never seen wild specimens with such leaves.—A. B.

Sonchus arvensis, L., Maritime form? Reagh I., Strangford Lough, Co. Down, Sept., 1892.—C. H. Waddell. Intermediate in character between the type and var. *maritimus*, Wahlenberg Flor. Suec. ed. 1, 1824.—A. B.

Hieracium holosericeum, Backh. Y Tayfan, Carnarvon, July, 1891.—J. L. Williams. Correct.—A. B.

H. cæsium, Fr.? Llandudno, Aug., 1892.—J. L. Williams. This agrees admirably with Mr. Ley's plants from the Wye recently described in J. of Bot. as *H. britannicum* var. *vagense*.—F. J. Hanbury.

H. Schmidtii, Tausch. Near Ilfracombe, N. Devon, July, 1892.—W. H. Painter. Correctly named.—F. J. H.

H. gothicum, Fr. Cwm Llebrith, S. Carnarvon, June, 1892.—J. L. Williams. *H. tridentatum*, Fr. (= *rigidum*, Hartm.).—F. J. H.

H. Farrense, F. J. H.? Gt. Orme's Head, July, 1892.—J. L. Williams. A maritime form of *H. rubicundum*, F. J. Hanb.—F. J. H.

H. stenolepis? Gt. Orme's Head, July, 1892.—J. L. Williams. I believe correctly named, but very abnormal, owing probably to the situation in which it grew.—F. J. H.

H. rubicundum? Cwm Glas, Snowdon, Aug., 1892.—J. L. Williams. Two sp. are *rubicundum*, one a *murorum* form.—F. J. H.

H. euprepes? Cwm Glas, Snowdon, August, 1892.—J. L. Williams. Correctly named.—F. J. H.

H. diaphanoides, Lind. Railway bank, Conway, May, 1892.—J. E. Griffith. This plant is by no means typical *diaphanoides*, the phyllaries being too floccose, and the whole plant too hairy in all its parts for that species. It is a form I know from many parts, and appears almost intermediate between *H. diaphanoides* and *H. vulgatum*. I should call it probably a *vulgatum* form.—F. J. H.

H. tridentatum, Fr. Near Coxwold, Yorks., Sept., 1892.—A. B. Hall. Is *H. commutatum*, Beck. (= *H. boreale*, Fr.)—F. J. H.

H. umbellatum, L. Llanberis, Sept., 1892.—R. W. Phillips. Correctly named.—F. J. H. (1).

H. sp.? Llanberis, Sept., 1892.—R. W. Phillips. Unless these are abnormally broad leaved forms of *H. umbellatum*, they seem to be intermediate in characters between that species and *H. boreale.* I have seen nothing quite like them before, and as Mr. Phillips sends typical plants of both species from the same locality, there is a strong suggestion of possible hybridity.—F. J. H. (2 and 3).

H. sp.? Llanberis, Sept., 1892.—R. W. Phillips. *H. tridentatum*, Fr.—F. J. H.

H. boreale, Fr. Llanberis, Sept., 1892.—R. W. Phillips. Correctly named.—F. J. H.

H. sp.? River bank, Rievaulx, Yorks., Sept., 1892.—A. B. Hall. Is *H. commutatum*, Beck. (*boreale*, Fr.).—F. J. H.

H. sp.? Deepdale, Upper Wharfedale, Aug., 1892.—T. A. Cotton. One specimen of these = *H. anglicum*, Fr., the other two belong to *H. scoticum*, F. J. Hanb., I believe, but should like to have seen more and stronger specimens before making so great an addition to the known range of this species.—F. J. H.

H. sp.? Cracow, Wharfedale, July, 1892.—T. A. Cotton. *H. vulgatum*, Fr.—F. J. H.

H. sp.? Hetton, Skipton, July, 1892.—T. A. Cotton. *H. vulgatum*, var. *sciaphilum*.—F. J. H.

H. sp.? Kettlewell, Wharfedale, Aug., 1892.—T. A. Cotton. *H. anglicum*, Fr.—F. F. H.

H. sp.? Starbotton, Wharfedale, Aug., 1892.—T. A. Cotton. Is *H. vulgatum*, Fr.—F. J. H.

H. sp.? Keld, Swaledale, Aug., 1892.—T. A. Cotton.—*H. gothicum*, Fr.—F. J. H.

H. sp.? Gayle, Hawes, Aug., 1892.—T. A. Cotton. *H. vulgatum*, Fr.—F. J. H.

Statice Limonium, L., a. *genuina*, Syme. Ashford, near Barnstaple, N. Devon, July, 1892.—W. H. Painter. Yes.—A. B.

S. Limonium, L., a. *genuina*, Syme. Fingringhoe, near Colchester, Essex, July, 1892.—A. B. Hall. Yes.—A. B.

S. Limonium, L., v. *pyramidalis*, Syme. Wells, Norfolk, Aug., 1892.—F. Long. Less characteristic than the Essex specimens ("*S. auriculæfolia*, var. *intermedia*"). The colour of the flowers very intense, and beautifully preserved. Syme says this is the same as *S. serotina*, Gren. et Godron, Fl. France, but not of Reichenbach, which he refers to the *S. Limonium* var. *macroclada* of Poissier; at present it seems the plant must bear his Eng. Bot. name, *S. Limonium*, var. *pyramidalis.*—A. B.

S. auriculæfolia, Vahl., a. *occidentalis*, Lloyd. Brancaster, Norfolk, Aug., 1892.—H. D. Geldart. Probably correct, but barren branches fewer than in the Kentish plant.—A. B.

S. auriculæfolia, Vahl., a. *occidentalis*, Lloyd. St. Martin's Pt., Guernsey, Aug., 1892.—M. E. Dawber. Spikes thicker than in last, and barren branches few.—A. B.

S. auriculæfolia, Vahl., v. *intermedia*, Syme. Fingringhoe, Colchester, Essex, July, 1892.—A. B. Hall. No; *S. Limonium*, L., var. *pyramidalis*, Syme.—A. B.

S. auriculæfolia, Vahl., b. *intermedia*, Syme. Ballyryan, Co. Clare, Aug., 1892.—P. B. O'Kelly. Nearest this, but spikes not so thick as usual. Bentham in the 1st ed. of his Handbook referred *S. auriculæfolia* to Vahl's plant, but in the 2nd to the same named plant of his Cat. Pl. des Pyrénees (1826), which according to Nyman is *S. lychnidifolia* of Giraud, a species of Spain, Portugal, and France. There must be some mistake about our British plant being referred to Vahl's *auriculæfolia*, notwithstanding the positive declaration of Boissier cited by Hooker, Student's Flora, ed. 3, p. 159. According to Nyman, Vahl's plant is restricted to Italy and the Balearic Isles. At present it cannot be decided what aggregate names the plants put under *S. binervosa*, G. E. Smith by Syme in Eng. Bot. must bear.—A. B.

Erythræa Centaurium, Pers., var. *capitata*, Koch. Westward Ho., N. Devon, Aug., 1892.—W. H. Painter. A reduced state of this variety.—A. B.

Solanum Dulcamara, L., v. *marinum*, Bab. Braunton Burrows, N. Devon, June and July, 1892.—W. H. Painter. Named by

Babington, Man. Brit. Bot. ed. 1, 1843, though Syme gives it as though his own variety.—A. B.

Id. Walton, Essex, July, 1892.—J. D. Gray. Not so characteristic as the last, apparantly nearer the type.—A. B.

Melampyrum pratense, L., var. *montanum,* Johnst.? Sow of Athole, Perth, alt. 2500 ft., July, 1892.—A. B. Hall. Johnston published this as a species in his Flora of Berwick, 1829—31. Babington, in the 1st ed. of his Manual of British Botany (1843), referred it to *pratense* as a variety, so it should bear the name of *M. pratense,* L., var. *montanum,* Bab. = *M. montanum,* Johnst. But these specimens do not seem referable to *montanum,* neither am I sure they can be called var. *ericetorum,* Oliver; I am more inclined to name them var. *purpureum,* Hartmann, but of this I have not seen specimens.—A. B.

Rhinanthus major, Ehrh. Pilmoor, Thirsk, Yorks., Sept., 1892. —A. B. Hall. I should name this *R. Crista-galli,* not *major.*—A. B.

Mentha piperita, L. On a wet spongy slope a little out of Belper, Derbyshire, Sept., 1892. Well-established, but only seen in one spot.—E. F. Linton.

Mentha pubescens, Willd. By Leigh Brook, Worcester, Aug., 1892.—J. H. A. Steuart. In the Report of the Exchange Club for 1889, p. 279, I noted that the Abbé Strail had observed on specimens I sent to the Club (grown in my garden) originally from Cornwall; "If I had found your mint in Belgium I should certainly have given it another name, and should have placed it close to *M. nepetoides,* Lej." I there recorded that through the kindness of Dr. Schuman I had seen the specimens of *M. aquatica* and *hirsuta* from the Willdenow and General Herbaria at Berlin, and the conclusion I came to was, that our *pubescens* (judging from specimens so named in the Berlin Herbaria, as I have not seen specimens from Lejeune) is the *nepetoides,* Lej., and that Willdenow's *pubescens* is a slight variety of the plant we call *M. aquatica.* Prof. Babington uses the name "*M. hirsuta,* L. Fr." for this plant; Dr. Boswell uses *M. hirsuta,* L., for *aquatica*; Sir J. D. Hooker uses *M. aquatica,* L., but his *aquatica* proper

= *M. hirsuta*, L , and the plant here under consideration stands as sub. sp. *pubescens*, Willd. In the 1st ed. of the Sp. Plantarum (1753) Linnæus has *M. aquatica*, but he says (p. 576) "planta non hirta." Mr. Jackson (Fl. Herts. 1887) has *M. hirsuta*, Huds. Fl. Angl. ed. 1 (1762). In his 1st ed. Linnæus has no *hirsuta*. All this is very puzzling for amateur botanists, and it is much to be wished that some definite meaning should attach to one of these names, and that our Floras should designate what they mean by "L." after a name in the case of such plants as "*M. aquatica*" and "*M. hirsuta*."—A. B.

M. sp.? Nutfield Marsh, Surrey, Sept., 1892.—C. E. Salmon. Is *M. rubra*, Sm. (Engl. Bot., 3rd. ed). The corolla in this is "glabrous without and within," in *sativa* hairy. Mr. Salmon's plant is a small form of *rubra*.—A. B.

M. sp.? Pasture, Kilmore, Co. Down, Sept. 1892.—C. H. Waddell. *M. arvensis*.—L. A. B.

M. sp.? Meghera hamlet, Co. Down, Aug. 1892.—C. H. Waddell. *M. arvensis* form. In *arvensis* the very different form of the calyx to *sativa* is not always well observable unless the plants have flowered for some time; then the campanulate calyx with triangular teeth is generally well shown; though there are forms that simulate *sativa* closely.—A. B.

Plantago lanceolata, L., b. *Timbali*. Jord. Near Madresfield, Worc., Aug., 1892.—J. H. A. Steuart. Correct, but Jordan called it a species.—A. B.

Suæda fruticosa. Forsk., Ashford, N. Devon, Aug., 1892.—W. H. Painter. *S. maritima*, Dum.—A. B.

Polygonum Convolvulus, L., var. *pseudo-dumetorum*. H. C. Wats. Nearer this than type, but not so characteristic as Watson's specimens. The proper name of this variety is probably var. *subalatum*, Van Hall, in Bijdragen Nat. Wetenschaffen, &c., vol. 6. p. 165 (1832). It was issued in a set of plants called "Choix de pl. de le Helge," No. 263, by Lejeune and Courtois, but I have not seen specimens.—A. B.

P. maculatum, D. and T. Guernsey, Aug., 1892.—M. E. Dawber. I am in doubt what to name this; it has the sepals shorter than the fruit, glands very few, but the peduncles are rough. I think it may be a glandular form of *P. Persicaria*.—A. B.

Rumex crispus, L , var. ? Conway, Carn., Sept., 1892.—J. L. Williams. A very slight variety; the inner sepals are slightly denticulate, and the shape is towards var. *subcordatus*, Warren.—A. B.

Salix rubra, Huds., b. *Forbyana*, Sm. Thirsk, Yorks., April and Sept., 1892.—A. B. Hall. I am afraid there is some mistake here; the catkins certainly correspond very closely with a *rubra* form, but the leaves are not those of *Forbyana*. Has there been some mistake in matching the leaves as from the same specimens as the catkins ?—A. B.

S. rubra, Huds., var. *Helix* (Linn.). Near Thirsk, Yorks., April and June, 1892.—A. B. Hall. *S. Helix*, L., is a dubious plant, about which authors are not agreed. He described it in the 1st ed. of the Species Plantarum, p. 1017 (1753). Most British authors have placed it under *S. rubra*, but Prof. Babington makes it a variety of *S. purpurea*. Whatever the plant of Linnæus may be, Dr. F. B. White in his "Revision of the British Willows" says that *Helix* of Smith is a hybrid between "*purpurea* and *viminalis*, though much more closely related to the former than the latter." The specimens issued as "*S. Helix*, Engl. Bot. t. 1343," by the Rev. J. Leefe (17 and 81) are male plants, and are clearly much nearer *purpurea* than any other British species. With these Mr. Hall's specimens do not seem to accord, but unfortunately they have no mature leaves, which ought to be gathered in August or September. There seems to be scarcely any approach to *viminalis* in them, but the difficulty I see in placing them under *purpurea* is found in the unusual length of style. Here, however, the variation on the same catkin is quite one half as to length. I do not think Mr. Hall's specimens can be called *S. Helix*, Sm., but rather a form of *purpurea*.—A. B.

S. sp. ? Banks of Codbeck, near Thirsk, Yorks., May, 1892.—A. B. Hall. *S. viminalis*, L.—A. B.

Epipactis media, Fr. Copse in private grounds, Witley, Surrey, Aug., 1892.—E. F. Linton. A few plants of *E. latifolia*, auct., grew in the same piece of woodland, but *E. media* was the more frequent. The Rev. E. S. Marshall, who was my guide, and I, both found it difficult in some cases to say to which species some of the plants gathered ought to be referred.—E. F. L.

Habenaria intacta, Benth. Glanquin, Co. Clare, May, 1892.—H. L. Levinge. It is very interesting to find this little orchid has been found in several fresh localities.—A. B.

Iris Pseudacorus, L., c. *Bastardi*, Bor. Limbury, Beds., June, 1892.—D. M. Higgins. As the colour of the flowers seems fairly well preserved, it is likely this is rightly named; when growing it is easy to see whether the deep orange is present or not, but not so after drying.—A. B.

Sparganium affine, Schnizl. Crafnant Lake, Carn., Aug., 1892.—J. L. Williams. Correct.—A. B.

Alisma Plantago, L., var. *lanceolatum*, With. Fieldhouse, Huddersfield, S.W., Yorks., Sept., 1892.—T. W. Woodhead. This is doubtless the plant so called by British botanists, but Withering's plant seemed to be a dwarf form of the plant with lanceolate leaves.—A. B.

Potamogeton polygonifolius, Pour., var. ? Pools near summit of Meall-nan-Tarmachan, Perth, July, 1892.—A. B. Hall. I do not know that this can be called a variety. It seems merely a small form induced by the elevation it was growing at.—A. B.

P. sp. ? Castors Bay, Lough Neagh, Armagh, July, 1892.—C. H. Waddell. *P. lucens*, L., a form tending towards the var. *longifolius* by length of leaf, but not otherwise.—A. B.

P. Sturrockii,, A. Benn. Grasmere, Westm., Aug., 1891.—C. Waterfall. Certainly not my *Sturrockii!* The specimen sent is K/ *P. obtusifolius*, M. and K., var. *fluvialis*, Mort.—A. B.

Zannichellia sp. ? Llandudno, Aug., 1892.—J. L. Williams. Is *Z. pedunculata*, Reichb.—A. B.

Panicum glabrum, Gaud. Gathered in company with the Rev. E. S. Marshall in a sandy field gone out of cultivation at Tilford, Surrey; also on a sandy strip of waste ground, Milford, Surrey, Aug., 1892. Apparently wild.—E. F. Linton.

Spartina alterniflora, Lois. Millbrook, Hants., Sept., 1892.—J. H. A. Steuart. *S. Townsendii*, H. and J. Groves.—A. B. On this Captain Steuart writes:—"With regard to the *Spartina* sent to the Club, I can only say that they were gathered at Millbrook in the exact spot shewn to me as it habitat by J. Groves, and that after I had gathered it I sent off specimens to J. G. to verify, which he returned as *S. alterniflora*. I got

S. Townsendii from Hythe a week later, but not nearly so forward; these were also passed as correct by Mr. Groves." Is it not possible that some of Captain Steuart's Hythe specimens may have got mixed up with the Millbrook ones?—H. P. R.

Deyeuxia neglecta, Kunth., var. *Hookeri*, Syme. Damp meadow by Lough Neagh, Aug., 1892.—R. L. Praeger. Syme described this under *Calamagrostis*, so to make the reference complete it requires "sub. *Calamagrostis*" to be added if quoted in that form. Many botanists hold that the proper reference would be "*D. neglecta*, Kunth., var. *Hookeri*, Hook. fil. Student's Flora, ed. 3, p 480, = *Calamagrostis lapponica,* Hooker non Hartmann, but this *apparently* produces the curious example of a botanist naming a plant after himself, though it was Sir W. J. Hooker whom Syme named it after, not Sir J. D. Hooker.—A. B.

Deschampsia flexuosa, Trin., var. *montana*, Huds.? Crags, Meall-nan-Tarmachan; Perth., July, 1892.—A. B. Hall. Correct on Prof. Hackel's authority.—A. B.

Koeleria cristata, L. Banks of the Garry, near Bonar, Perth., July, 1892.—A. B. Hall. Correct.—A. B.

Poa Balfourii, Bab. Crags, Meall-nan-Tarmachan, Perth., July, 1892.—A. B. Hall. Yes, fide Hackel, A. B.

P. Parnellii, Hook. and Arn.? Crags, Meall-nan-Tarmachan, Perth, July, 1892.—A. B. Hall. "*P. nemoralis*, L." fid. Hackel. —A. B.

P. pratensis, L., b. *subcœrulea*, Sm. Grassy wall tops, Welton, near Hull, Aug., 1892.—C. Waterfall. Two specimens are the above, the other one is *Festuca ovina*, L.—A. B.

Festuca elatior, L., var. *loliacea*, Huds. Knock Ross, Co. Westmeath, July, 1892.—H. L. Levinge. (No. 1). *Festuca arundinacea*, var. *simplex*, Celakosky. *f. mutica*.—A. B., fide Hackel.

Id. ibid. July, 1892.—H. L. Levinge. (No. 2). *Forma aristata* of above, on Hackel's authority.—A. B.

F. rubra, L., b. *arenaria*, Osb. Yarmouth, Norf., June, 1892.—H. D. Geldart. Correct.—A. B.

Bromus mollis, L., c. *Lloydianus*, Syme. Limestone rocks, Gt. Orme's Head, June, 1890.—C. Waterfall. Prof. Hackel names this a poor form of *B. mollis*, L.—A. B.

Agropyron pungens, R. and S., var. *littorale*, Reichb. Lowestoft, Suffolk, June, 1892.—H. D. Geldart. *Agropyron repens*, Beauv., fid. Hackel.—A. B.

Asplenium Adiantum-nigrum, L, var. *acutum*, Poll. Hedgebanks, Newtonards, Co. Down, Dec., 1892.—J. L. Praeger. Not so "produced" at the leaf-apex as some of the Irish specimens —A. B.

Ceterach officinarum, Willd., b. *crenatum*, Milde. Near Ballyvaughan, Co. Clare, May, 1892.—H. L. Levinge. Scarcely this var., the dentation is so slight, and in many of the pinnæ so like a mere inflexion of the margin, that I should hesitate to put the varietal name to it.—A. B.

Polystichum angulare, Presl., var. *subtripinnatum*, Moore ?—Tremadoc, S. Carnarvon, Sept., 1891.—J. L. Williams. I do not know Moore's var. so called.—A. B.

Equisetum variegatum, Schleich., c. *Wilsoni*, Newm. Edge of Lough Drin, Co. Westmeath, April, 1892.—H. L. Levinge. These specimens have the stems not above half the thickness of the Killarney plant (*Wilsoni*), and are altogether a much slenderer plant. I should have named them *E. variegatum*, var. *majus*, Syme, that is the same as the Royal Canal plant at Dublin, &c.—A. B.

Chara fragilis, Desv., c. *delicatula*, A. Br. Shallow water, Lough Neagh, July, 1892.—R. L. Praeger. Correct.—A. B.

C. aspera, Willd. Hickling, Norfolk, Aug., 1892.—C. Cotton. Correct.—A. B.

Id. Grande Mare, Guernsey, June, 1892.—M. E. Dawber. Correct.—A. B.

C. baltica, b. *affinis*, H. and J. G. Grande Mare, Guernsey, June, 1892.—M. E. Dawber. Correct.—A. B.

C. sp. ? Cunswick Tarn, Westm., Aug., 1892.—C. H. Waddell. *C. aspera*, Willd., much incrusted.—A. B.

Tolypella glomerata, Leonh. Penmon, Anglesey, Oct., 1892.—R. W. Phillips. Correct.—A. B.

Nitella tenuissima, Kuetz. Holes in "Scraw-bog," Loughanstown, Co. Westmeath, Aug., 1891.—H. L. Levinge. Unusually lax for this species.—A. B.

N. translucens, Agardh. Ditch near Ivy Castle, Guernsey, May, 1892.—M. E. Dawber.—Correct.—A. B.

TREASURER'S BALANCE SHEET FOR 1892.

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J. T. POWELL, *Hon. Treasurer*

The thanks of the Club are due to the Rev. H. P. Reader, M.A., for his valuable services as Distributor, also for preparing the new List of Desiderata and Report.

T. A. COTTON, *Hon. Sec.*

SUBSCRIPTIONS TO DEC. 31st, 1892.

Cotton, Mrs.	0	5	0
Crosfield, A. J.	0	5	0
Crossland, C.	0	5	0
Dawber, Miss	0	5	0
Flower, F. B.	0	5	0
Fox, Rev. H. E.	0	5	0
Geldart, H. D.	0	5	0
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Knoop, H. L.	0	5	0
Levinge, H. L.	0	5	0
Linton, Rev. E. F.	0	5	0
Linton, Rev. W. R.	0	5	0
Lomax, Mrs.	0	5	0
Lomax, A. E.	0	5	0
Maclagan, Dr. P.	0	5	0
Mennell, H. T.	0	5	0
Nicolson, D.	0	5	0
Painter, Rev. W. H.	0	5	0
Paulson, R.	0	5	0
Powell, J. T.	0	5	0
Praeger, R. L.	0	5	0
Reader, Rev. H. P.	0	5	0
Roberts, Dr. J.	0	5	0
Salmon, C. E.	0	5	0
Steuart, Capt. A.	0	5	0
Vaughan, Rev. J.	0	5	0
Ward, F. H.	0	5	0
Waterfall, C.	0	5	0
Williams, J. L.	0	5	0
Woodhead, T. W.	0	5	0
	8	15	0

94.

THE
TENTH ANNUAL REPORT
OF THE
WATSON
Botanical Exchange Club
1893-94.

Referees :—

Prof. BABINGTON, M.A., F.R.S., F.L.S., etc., Cambridge.
J. G. BAKER, F.R.S., F.L.S., Royal Gardens, Kew.
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"Labor Omnia Vincit."

E. BAMFORD, PRINTER, ASHBOURNE.
1894.

S/

REPORT FOR 1893-1894.

THE number of contributors to the Club this year is 25, being one less than last year. The specimens sent number 1809, several interesting plants being among them. Hawkweeds and Brambles are fairly well represented, not so the other critical genera. Some members still send fragmentary or badly dried and unrepresentative specimens; they are kindly and earnestly requested to amend their ways. A large number of the plants sent were single specimens, which in critical species makes it very difficult to obtain a correct diagnosis and name, and leaves none over for distribution. In mercy to such senders, Rule 3 c. was not carried out in every case this distribution. Its terms, however, must in future be adhered to. Single specimens will be treated as "for record only, not for distribution."

Rev. W. M. Rogers says on the *Rubi*:—"I certainly cannot congratulate the Watson Club on its 1893 *Rubi*. I have done the best I can with the wretched material; but a great deal of it is neither fit to name or keep. The *incurvatus* is interesting."

We regret to report the loss of one of our members by death, Mr. A. E. Lomax died of cerebral inflammation, at Liverpool, on May 4th, at the early age of 35. He was a vigorous collector of British and foreign plants, and a regular contributor till this year to the Club.

The Club is under great obligations to those who have most kindly examined and reported on plants sent, viz.:—Messrs. A. Bennett, J. G. Baker, F. J. Hanbury, and Revs. E. F. Linton and W. Moyle Rogers.

Below are appended the names of the contributors, with the numbers of plants respectively contributed:—

Mr. A. J. Crosfield	10
Miss M. E. Dawber	109
Captain R. H. W. Dod	325
Mr. H. D. Geldart	35
Rev. J. D. Gray, M.A.	64
Mrs. E. S. Gregory	11
Mr. J. E. Griffith, F.L.S.	120
Mr. A. B. Hall	101
Miss D. M. Higgins	12
Mr. H. L. Levinge, B.A., D.L.	174
Rev. E. F. Linton, M.A.	129
Mrs. Lomax	68
Rev. W. H. Painter	70
Mr. J. T. Powell	13
Rev. H. P. Reader, M.A.	50
Mr. C. E. Salmon	22
Mr. E. S. Salmon	17
Mr. A. Somerville, F.L.S.	30
Captain A. Steuart	73
Mr. H. S. Thompson	35
Rev. C. H. Waddell, M.A.	59
Mr. F. H. Ward	12
Mr. C. Waterfall	126
Mr. J. L. Williams	67
Mr. T. W. Woodhead	77
	1809

W. R. LINTON, Distributor for the year 1893-94.

Thalictrum minus, L., v. *flexuosum,* Reich. = v. *majus,* Sm. Rocks at Black Head, Co. Clare, June 23, 1893.—Leg. P. B. O'Kelly. Comm. H. C. Levinge. This is *T. collinum,* Wallr., not the *T. majus* Crantz. *T. flexuosum* Bernhardi ex Reichenbach is a doubtful plant, and must be passed over, Wallroth's name being seemingly the correct one. *T. minus,* of the Linnæan herbarium, is, according to Mr. N. E. Brown (Supp. Eng. Bot., part 90, p. 3, 1891), *T. Kochii* Fries. Our Thalictra have been much confused, and even now I have failed to get a name applied to the Newmarket plant by foreign experts, though I have grown and dried complete series of the plant for some years. Nyman places the plant sent by Mr. Levinge under *T. Jacquinianum* Koch (1843); but Wallroth's name dates from 1822 in his Schedulæ Criticæ Fl. Halensis.—A. B.

Ranunculus. Pollramer Lake, Co. Down, May, 1893.—C. H. Waddell. Is *Apium inundatum,* Reich. A form between the typical, and v. *isophylla,* Sonder (under Helosciadum).—A. B.

? R. trichophyllus, Chaix. Near Thirsk, N. Yorks., May, 1893. —A. B. Hall. Doubtful, but I do not know where else to put it. —A. B.

? R. Drouettii, Godr. Newby Carr, near Thirsk, N. Yorks., May 1893.—A. B. Hall. I think *R. trichophyllus,* Chaix.— W. R. L.

R. ? Edges of pond, Thirsk, N. Yorks., May, 1893.— A. B. Hall. Probably *R. heterophyllus,* Bab.—A. B.

R ? Ballyagherty, Saintfield, Co. Down, 1893.—C. H. Waddell. *R. peltatus,* v. *truncatus,* Hiern.—W. R. L.

R. ? Millstream, Nayland, Suffolk, June, 1893.—J. D. Gray. *R. penicillatus,* Hiern (under aquatilis as a form).—A. B.

R. Baudotii, Godr. Oughtmanna, Co. Clare. 18, v, 1892.— H. C. Levinge.—Near Ivy Castle, Guernsey. 3, v, 1893.—Miss M. Dawber. Correct.—A. B.

R. ? River, Crongar, Co. Down, May, 1893.—C. H. Waddell. Is *R Baudotii,* Godr.—A. B.

R. Baudotii, Godr. Inchiquin Lake, Co. Clare, 7, vii, 1893. —H. C. Levinge. A curious small form.—A. B.

R. Flammula, L. v., *pseudo-reptans*, Syme. St. Saviour's, Guernsey, 2, vii, 1893.—Miss M. Dawber. Rather v. *angustifolius*, Wallroth, Sched-Crit., p. 289.—A. B.

R. Flammula, L., v. *pseudo-reptans*, Syme. York Town, Surrey, July, 1884.—E. Straker. May be, but such specimens are totally insufficient to determine plants.—A. B.

R. acris, L., v. *vulgatus*, Jord. Huddersfield, S. W. Yorks., 13, v, 1893.—T. W. Woodhead. Seems correct, but too young. —A. B.

Fumaria pallidiflora, Jord., v. *Borœi*, Jord. Saintfield, Co. Down, July, 1893.—C. H. Waddell. I should have named this *F. muralis*, Sonder.—A. B.

F. pallidiflora, Jord., v. *Borœi*, Jord. Torquay, S, Devon, June, 1888.—C. Waterfall. Specimen poor, looks like *pallidiflora* only.—W. R. L.

F. confusa, Jord. Malvern, Worc., June, 1886.—R. F. Towndrow. Probably correct as to the piece, though the specimen is a wretched one.—A. B.

F. Vaillantii, Lois. Cherry Hinton, Cambs., Oct., 1893.—A. H. Evans. Comm. H. P. Reader. I could have told this in a minute if I had seen it fresh. I have gathered hundreds of *F. parviflora*, but none like this. I believe it to be correctly referred to *Vaillantii*, but it is, perhaps, the v. *gracilis*, Knaf.—A. B.

Barbarea intermedia, Bor. Witley, Surrey, 10, vi, 1893—A. H. W. Dodd. *B. vulgaris*, R. Br., I consider.—A. B.

B. intermedia, Bor. Thirsk, N. Yorks, May, 1893.—A. B. Hall. Too young, not *intermedia*.—E. F. Linton. It has not the habit of vulgaris, though the pedicels are almost patent (when young). Certainly not intermedia, but I am not sure of the name it should bear.—A. B.

B ? Saintfield, Co. Down, May, 1893.—C. H. Waddell. Is *B. intermedia*, Bor.—A.B.

Cardamine pratensis L., b. *dentata*. Hayne and Welw. Ivy Castle, Guernsey, 9, v, 1893.—M. Dawber. Probably correct, but material insufficient.—A. B. From specimen received, I am inclined to think a form of *C. pratensis* which is not infrequent.—W. R. L. I should say the same of a plant, named as above, sent from Wrington, Somerset.—W. R. L.

Viola hirta, L., v. *calcarea*, Bab. Near Ashmore, Dorset, 1, iv, 1893.—E. F. Linton.

Silene Cucubalus, Wibel, v. *angustifolia*, Ten, W. Kent, 31, v, 1893.—A. H. W. Dod. Some of the leaves rather broad for this leaf variety, but the shoots with the narrower leaves match well my specimens from the South Coast of Austria; but Koch describes a form with much narrower leaves.—E. F. Linton. I do not know the date of Tenore's work where this appears, but Meyer Ch. Hann, p. 194 (1836), has a v. *angustifolia*.—A. B.

Vicia angustifolia, Roth, v. *Bobartii* (Forster). Guernsey, 23, v, 1893.—M. Dawber. I should have called this *V. angustifolia* only.—A. B.

Rubus suberectus, Anders? Peat Moors, Edington, Somerset, July, 1893. Fruit dark red, sepals reflexed.—E. S. Gregory. Stem piece is certainly *R. affinis*, W. and N. Fruiting piece from another plant, possibly *R. suberectus*.—W. M. R.

R. rhamnifolius, W. and N. v. Near Bodorgan Station, Anglesey, Aug., 1893.—J. E. Griffiths. A handsome example of the "*R. rhamnifolius* of British Authors," which Dr. Focke now says "cannot be clearly distinguished from" his v. *stenoplos* growing in W. Germany, near the Rhine.—W. M. R.

R. pulcherrimus, Neum. Saintfield, Co. Down, 29, vi, 1893.—C. H. Waddell. I cannot name these pieces. I see nothing to connect them with *R. pulcherrimus*, good specimens of which Mr. Waddell has recently sent me from Saintfield.—W. M. R. *R. pulcherrimus*, I believe.—W. R. L.

R. pyramidalis, Kalt? Near Matlock Bridge, Derby, 7, viii, 1893.—H. S. Thompson. Seems identical with the strongly marked form of *R. incurvatus*, Bab., which Rev. W. R. Linton finds in the Shirley neighbourhood, differing from the type in the crowded, strongly hooked, pan. prickles, and less thickly felted rachis, and *so far* recalling *R. Selmeri*, Lindeb (v. of R. *villicaulis*, Koehl).—W. M. R.

R. villicaulis, Koehl, v. *Selmeri,* Lindeb. Saintfield, Co. Down, 2, ix., 1893.—C. H. Waddell. Yes.—W. M. R.

R. anglosaxonicus, Gelert. Matlock Bath, Derbyshire, 24, vii, 1893.—W. H. Painter. The panicle is *R. Lindleianus,* Lees, and presumably the leaves are the same, if shadegrown. The leaves are much more glabrous than usual.—E. F. Linton. *R. Lindleianus,* Lees.—W. M. R.

R. mercicus, Bagnall. Near Bethel, Anglesey, Aug., 1893.—J. E. Griffith. In the sheet sent to me the two panicles are probably *R. mercicus,* while the two stem pieces are, I believe, certainly *R. pulcherrimus,* Neum.—W. M. R.

R. conspicuus, P. J. Muell. High Tor, Matlock Bath, Derbyshire, 24, vii, 1893.—W. H. Painter. Ordinary *R leucostachys,* Schleich.—W. M. R.

R. micans, Gren. and Godr. Near Llanberis, Canarvonshire, Aug., 1893.—J. E. Griffith. Clearly not *R. micans,* but I cannot name it without seeing better specimens.—W. M. R. Not *micans.*—E. F. Linton.

R. Drejeri, G. Jensen. Partly in shade, Saintfield, Co. Down, Aug., 1893.—C. H. Waddell. Yes.—W. M. R.

R. prœruptorum, Boul. Near Bodorgan Station, Anglesey, August, 1893.—J. E. Griffith. I suggested the name *R. prœruptorum,* Boul. for this plant, though I suppose the felted leaves to be untypical—W. M. R.

R. Koehleri, Weihe, v. *pallidus,* Bab. Near Olton, Warwick, 18, viii, 1893.—H. S. Thomson. Does not this belong to the form of *R. rosaceus,* W. and N., for which I have suggested the varietal name *infecundus?* I cannot say certainly without seeing better material.—W. M. R. I considered *infecundus* without doubt.—W. R. L.

R. Koehleri, Weihe, v. *pallidus,* Bab. Near Garth Ferry, Anglesey, Aug., 1893.—J. E. Griffith. Saintfield, Co. Down, Sept., 1893.—C. H. Waddell. Yes.—W. M. R.

R. dumetorum, W. and N., v. *ferox,* Weihe. Repton, Derbyshire, Aug., 3, 1893.—W. H. Painter. *R. dumetorum,* W. and N., I suppose, but hardly *ferox.*—W. M. R.

R. corylifolius, Sm. Nr. High Tor, Matlock Bath, July 24, 1893.—W. H. Painter. I cannot see *R. corylifolius* here, but either a hybrid between *R. cæsius* and that species, or a form of *R. cæsius* itself.—W. M. R.

R. cæsius, L. v. *tenius* (Bell Salt.) Nr. High Tor, Matlock Bath, July 24, 1893.—W. H. Painter. More glandular, and with broader leaflets than I imagine Bell Salter's plant to be, but still I suppose nearer to that var. than to any other in our list.—W. M. R.

Alchemilla vulgaris, L. v. Glen Eunach, Co. 96. 19, vii, 1893.—A. Somerville. According to Kerner's idea of *A. vulgaris*, given by Mr. Druce in "Ann. Scot. Nat. Hist., 1893," this would be v. *glabra*, not of Wimm. and Grab., as there given, but Mertens and Koch Deutsch, Fl. 1, p. 830 (1823).—A. B.

Poterium muricatum, Spach. Thirsk, N. Yorks, May, 1893.—A. B. Hall. I think only the ordinary species. The fruit is hardly formed to be quite sure, but I think not *muricatum;* the other specimens are in an excellent state for determination.—A. B.

P. muricatum, Spach. Luton, Beds., July, 1893.—Mrs. Lomax. Is *B. stenolophium* (Jord. sp.), Syme, though some of the fruit of Mr. Reader's *platylophium* has got on the sheet, but the fruits in situ are *stenolophium*.—A. B.

Rosa tomentosa, Sm. v. *subglobosa* (Sm.) Nr. Upper Halling, W. Kent. 25, vi, 1893.—The Rev. W. M. Rogers thinks it nearest this species.—A. H. W. Dod.

R. nearest *agrestis*, Savi (*Sepium*, Thuill.), but no bristles or setæ intermixed with prickles. Llandudno, Gloddaeth and Carnarvon, July and August, 1891.—J. L. Williams. *R. agrestis*, Savi (*R. sepium*, Thuill.) certainly. I have it already from Gloddaeth, collected by Mr. J. E. Griffith.—E. F. Linton.

R. (*decipiens*, Dum.)? Nayland to Wiston, Suffolk, June, 1893.—J. D. Gray. Seems correct.—W. R. L.

R., Cerrig y Rhaydwr, Portmadoc, Carnarvon, Aug., 1893. —J. L. Williams. *R. canina*, L. v. *Borreri*, Woods.—E. F. Linton.

R. stylosa, Desv. v. *evanida,* Christ? Ham Common, Surrey, June, 1893.—A. H. W. Dod. To me does not well agree with specimens so named by Dr. Christ for Mr. Nicholson of Kew.—A. B.

Pyrus latifolia, Syme. Hoo, Meavy, S. Devon, June, 1893.—Mrs. Lomax. Yes, I believe correct; but Syme's name (1875) is preoccupied by that of Bechstein (1843), who calls the plant *P. rotundifolia,* according to Mr. N. E. Brown in "Eng. Bott. Supp.," No. 92, p. 164 (1892). Mrs. Lomax's specimen agrees well with specimens so named by Mr. N. E. Brown, and with tracings of the drawings of Bechstein, kindly given to me by Mr. Brown.—A. B.

Cratægus oxyacanthoides, Thuill. v.? Gunthwaite Woods, S. W. Yorks., 22, v, 1893.—T. W. Woodhead. Is *C. Monogyna* Jacq.—A. B.

Saxifraga sponhemica, Gmel. Above Ashrigg, N. Yorks., May, 1893.—C. Waterfall. I do not think it is *sponhemica;* but such specimens are waste of time to endeavour to determine.—A. B.

Callitriche? Rotten Park Reservoir, Warwick, 21, ix, 1893.—H. C. Thompson. Not determinable.—A. B.

C. platycarpa, Kuetz? Warwick, 21, ix, 1893.—H. S. Thompson. Yes.—A. B.

Circæa lutetiana, L. v. *intermedia,* Lond. Cat. Slaithwaite, Nr. Huddersfield, S.W. Yorks., 16, ix, 1893.—T. W. Woodhead. Seems to me a form of *lutetiana.* The v. *intermedia* of Ehrhart seems to be really a hybrid, according to "Meyer Ch. Hann," p. 100 (1836), who says that Ehrhart has both *alpina* × *lutetiana* and the reverse.—A. B.

Pimpinella Saxifraga, L. v. *dissecta,* Spreng. Sewell, Beds, Aug., 1893.—D. M. Higgins. Probably v. *laciniata,* Meyer.—A. B.

Gnaphalium uliginosum, L. v. *pilulare,* Wahl. Warwick, 21, ix, 1893.—H. S. Thompson. The type only.—A. B.

Bidens cernua, L. v. *radiata* Sond. Shore of Lake, Carrickmannan, Co. Down, Aug., 1893.—C. H. Waddell. Malpas, Cheshire, 5, viii, 1893.—A. H. W. Dod. The name will partly be referable to Willdenow; certainly many antedate Sonder. "Gray's Nat. Am., 1821," has *B. radiata.*—A. B.

Hieracium holosericeum, Backh. Head of Glen Callater, Aberdeenshire, 2,500 ft., July, 1893. Styles yellow.—A. B. Hall. Correct for some of the specimens, but others were *H. eximium v. tenellum,* Backh.—W. R. L.

H. eximium, Backh. Head of Glen Callater, 2500 ft. ; Crags, Lochnagar, 3000 ft., Aberdeenshire. July, 1893. Styles livid, —A. B. Hall. Yes.—F. J. H.

H. calenduliflorum, Backh. Crags, Lochnagar, Aberdeenshire, 3000 ft. Styles livid. July, 1893.—A. B. Hall. Yes.—F. J. H.

H. gracilentum, Backh. Crags, Lochnagar, Aberdeenshire, 3000 ft. July, 1893.—A. B. Hall. Yes.—F. J. H. & E. F. L.

H. chrysanthum, Backh. West side of Ben Mac Dhui, and near Loch Dubh, Lochnagar, 3000 ft., Aberdeenshire. Styles yellow ; July, 1893.—A. B. Hall. Yes.—F. J. H. & E. F. L.

H. nigrescens, Willd. Among crags at the head of Glen Callater, Aberdeenshire, 2-2500 ft.—A. B. Hall. *H. curvatum,* Elfstrand. Herr Elfstrand, in conjunction with Mr. Hanbury.—New Record for Britain.

H. vulgatum, Fr. East side of Glen Callater, Aberdeenshire, 2500 ft., July, 1893.—A. B. Hall. *H. atratum,* Fr.—F. J. H.

H. anglicum, Fr. Road between Braemar and Inverey, Aberdeenshire, 1,000 ft., July, 1893. Styles faintly livid.—A. B. Hall. Yes, a form.—F. J. H. Yes.—E. F. L.

H. lingulatum Backh. Head of Glen Callater, Aberdeenshire, 2500 ft., July, 1893. Styles livid.—A. B. Hall. *H. anglicum,* Fr.—F. J. H. and E.F.L.

H. murorum, L. pt. Canlochan Glen, Forfar, 2,700 ft. July, 1893.—A. B. Hall. Two plants, one *H. anglicum,* Fr., the other too poor to name.—F. J. H.

H. . Cheddar, Somerset, April, 1893.—E. S. Gregory. *H. Lima,* F. J. Hanbury.—W.R.L.

? *H. argenteum,* Fr. Burn on east side of L. Callater, Aberdeenshire, 2500 ft., July, 1893.—A. B. Hall. Yes.—F. J. H. and E. F. L.

H. vulgatum, Fr. East side of Glen Callater, Aberdeenshire, 2500 ft., July, 1893.—A. B. Hall. ? *H. Argenteum,* Fr. f.—F. J. H.

H. nitidum, Backh. Near Bachnagairn, Glen Clova, Forfar, 2-2500 ft. July, 1893. Styles yellow.—A. B. Hall. Probably *H. nitidum*, Backh. but unusually hairy.—F. J. H. A plant which has been put hesitatingly to *H. nitidum*, Backh., but it is not typical. Are the styles clear yellow?—E.F.L.

H. nigrescens, Willd. Head of Glen Callater, Aberdeenshire, 2-2500 ft. Styles livid, July, 1893.—A. B. Hall. *H. euprepes*, F. J. Hanbury.—F. J. H.

H. nigrescens, Willd. Head of Glen Callater, Aberdeenshire, 2-2500 ft. July 1893.—A. B. Hall. Neither *nigrescens*, nor *cæsium*.—F. J. H.

H. vulgatum, Fr. Burn East side of L. Callater, Aberdeenshire, 2500 ft., July 1893.—A. B. Hall. Not *H. vulgatum*, but a form of *H. murorum*, L. pt.—F. J. H.

H. cæsium, Fr. Lochanburn, Moffat, Dumfriesshire, 1893.—G. Y. Scott-Elliot. *H. murorum* v. *micracladium*, Dahlst.—F. J. H.

H. murorum, L. pt. Linn of Corriemulzie, near Braemar, Aberdeenshire, 1000 ft., July, 1893.—A. B. Hall. *H. cæsio-murorum*, Lindeb. f.—F. J. H.

H. sparsifolium, Lindeb.? Dryfesdale Common, Dumfriesshire, 1893.—G. Y. Scott-Elliott. No.—F.J.H. My *stenophyes*.—W.R.L.

H. No. 4. Wood, Wynch Bridge, Teesdale, Durham, 21, vii, 1893.—T. W. Woodhead. Is *Crepis hieracioides* W. and K.—W. R. L.

H. vulgatum, Fr. Burn on the East side of Glen Callater, Aberdeenshire, July, 1893. Styles livid.—A. B. Hall. Yes.—F. J. H. and E. F. L.

H. vulgatum, Fr. Limpley, Stoke, V. C. 7, 4, vi, 1893.—E. S. Gregory. Is *v. maculatum*, auct.—F. J. H.

H. vulgatum, Fr. v. *maculatum*, auct. Roadside, Billhill, Wokingham, Berks., 13, vi, 1893. Styles livid.—C. E. Salmon. Yes.—F. J. H.

H. vulgatum, Fr. v. ? No. 6. Sandstone Quarry, Salendine Nook, Huddersfield, and No. 7, Dropsclough, Slaithewaite, S.W. Yorks, July 1893.—T. W. Woodhead. *v. sciaphilum* Uechtr.—W. R. L.

H. No. 3, Wynch Bridge, Upper Teesdale, Durham, 21, vii, 1893.—T. W. Woodhead. *H. gothicum,* Fr.—W. R. L.

H. sparsifolium, Lindeb. Nant Francon, Carnarvonshire, Aug. 1893.—J. E. Griffith. Dr. Elfstrand regards this as a variety of *H. gothicum,* Backh.—F. J. H.

H. No. 1, Banks of Tees above Wynch Bridge, Upper Teesdale, 21, vii, 1893.—T. W. Woodhead. *H. auratum,* Fr.—W. R. L.

H. boreale, Fr. f. Railway Bank, Upper Norwood, London, Aug. 1893.—E. S. Gregory. Yes.—F. J. H.

H. No. 2, Near Lower Cronkly Bridge, Upper Teesdale, 21, vii, 1893.—T. W. Woodhead. Apparently *H. umbellatum,* L.—W. R. L.

Limosella aquatica, L. Inchiquin Lake, Co. Clare, 7, viii, 1893. I very much regret that I was unable to procure enough of this form of *Limosella aquatica* for distribution. I send these few bits, however, as I am anxious to know if this form of growth has been before observed. Some of the petioles in my mounted plants are upwards of six inches long. The "Short Note" in the Journal of Botany for October, 1893, p. 309, should be read, as it explains the circumstances under which the plant was gathered in this form.—H. L. Levinge. An interesting deep water state of *Limosella,* which would probably occur elsewhere under similar conditions. The very varying length of the petiole in normal specimens gives the impression that this lengthening (or shortening) may be carried to a much further extent under special circumstances, and the present plant is a case in point.—W. R. L.

Mentha sativa, L., v. *paludosa,* (Sole). Anglesey, Aug., 1893.—J. E. Griffith. *Not paludosa,* which has the upper whorls with bracts so short that the whorls hide them, and the whorls are closer together, with somewhat the look of the spicate mints.—A. B.

Scutellaria minor, L., × *galericulata,* L. Surrey, 26, viii, 1893.—A. H. W. Dod. Named *S. Nicholsoni,* by Taubert, in Verh. Bot. Vereins. Prov. Brandenburg, Jahr. 28, 1887.—A. B.

Lamium intermedium, Fr. Thirsk, Yorks., Sept., 1893.—A. B. Hall. Is *stachys arvensis,* L.—A. B.

L. hybridum, Vill. Almondbury Bank, Huddersfield, Sept. 1893. Is the plant recorded in Dr. F. A. Lees' Flora, of W. Yorkshire, as *L. intermedium*, Fr. T. W. Woodhead.

L.? Saintfield, Co. Down, Aug. 1893.—C. H. Waddell. Is *L. intermedium*, Fr.—A. B.

Chenopodium rubrum, L., v. *pseudo-botryodes*, H. C. Wats? Warwick, 21, ix, 1893.—H. S. Thompson. This is what was called v. *pseudo-botryodes*, because it had been mistaken for *C. botryodes*, Sm. Mr. H. C. Watson, however, gave evidence years ago (Journ. Bot., 1869, p. 142) that it was a *state* due to situation and circumstances rather than a variety of *C. rubrum*.—E. F. Linton. Is v. *pseudo-botryodes*, H. C. Wats.—A. B.

Polygonum Convolvulus, L., v. *pseudo-dumetorum*, H. C. Wats. Morfa Bychan, Carnarvonshire, Aug., 1893.—J. L. Williams. See Report for 1892-3, where it is suggested by the writer that it is the v. *subalatum*, Van Hall. It is probably also the v. *alatum* of Hooker, Brit. Fl., ed. 6 (1850). Saelan, in Herbarium Musei Fennici, p. 131 (1889), has a v. *apterum* of *P. dumetorum*, which he thinks may be a hybrid between the two plants; this cannot be considered the case with our plant, as it certainly belongs to *P. Convolvus*.—A. B.

P. aviculare, L. v. *vulgatum*, Syme (Jord. sp.) Water Orton, Warwick, 26, viii, 1893.—H. S. Thompson. Probably correct, as, though not typical, it seems a condensed form of that form.—A. B.

Rumex conglomeratus, Murray, v. *rupestris* (Le Gall.) Pleimont, Guernsey, 10, viii, 1893.—M. Dawber. Probably *R. rupestris* (Le Gall.)—A. B.

Euphorbia Esula, L. v., *pseudo-Cyparissias*, Jord. Gravel Pit, Ripple, Worcestershire, Aug., 1893.—C. Waterfall. Seems right. —E. F. Linton.

Quercus Robur, L. v. *sessiliflora* (Salisb.) Cawthorne, S.W. Yorks., 22, v, 1893.—T. W. Woodhead. *Q. pedunculata*, Ehrt. —E. F. Linton.

Salix rubra, Ands. v. *Forbyana* (Sm.) Near Derby, April and July, 1893.—W. H. Painter. This has less of the purpurea element than the plant of Smith, and does not actually match it.

Yet it is not the "v. *viminaloides, rubra genuina*" of Dr. White's Revision, and in breadth of leaves comes near specimens of a form (male) from near Northbury, given to me by Mr. Leefe, from his own herbarium.—A. B.

S. phylicifolia, "Linn." R. Yore, Aysgarth, N. Yorks., May, 1893.—C. Waterfall. I think the fruiting branch on my sheet is ? *S. nigricans* × *phylicifolia*. The barren shoot is probably *S. phylicifolia*, blackened by want of care. Willow specimens under one label should be taken from one plant, and not mixed from different bushes, as I think is the case here.—E. F. Linton.

S. phylicifolia, "Linn." v. Inverey, Aberdeenshire, July, 1893. —A. B. Hall. One of the numerous forms of *S. phylicifolia*.

S. nigricans, "Sm." v. L. Callater, Aberdeenshire, July, 1893. —A. B. Hall. Typical *nigricans*.—E. F. Linton. Very near v. *genuina*, except that the leaves are rather more hairy underneath. —A. B.

S. nigricans, "Sm." v. *Andersoniana* (Sm.) Helnaby, N. Yorks, May, 1893.—A. B. Hall. Not, I think, *Andersoniana*; in that the pedicels of the capsules are downy, and the capsules are longer. It does not exactly match any of the named varieties of British books, and is perhaps between *Forsteri* and *petræa*.—A. B. Male and female, both *nigricans* forms.—E. F. Linton.

S. herbacea, L. v. *fruticosa*. Whitcoomb, Dumfriesshire, 2200 ft. 28, v, 1893.—G. Y. Scott-Elliott. A state of *herbacea*, due to growing in an exposed situation; I have gathered similar specimens in Hoy, Orkney.—W. R. L.

Juncus compressus, Jacq. Co. Down, June, 1893.—C. H. Waddell. Certainly, *J. Gerardi*, Lois.—A. B.

Sparganium neglectum, Beeby. Redhill, Surrey, Oct., 1893.—A. J. Crosfield. Correct.—A. B.

S. neglectum, Beeby ? Olten Reservoir, Warwick, 19, ix, 1893. —H. S. Thompson. *S. simplex*, Huds.—A. B.

Potamogeton lucens, L. v. *cornutus*, Kost. = *P. cornutus*, Presl. Dinan Lake, Anglesey, Aug, 1893.—J. E. Griffith. Probably correct; I have seen a specimen gathered by Presl, in the Prague herbarium; but an earlier name for what is substantially the same plant is: *P. lucens*, L. v. *acuminatus*, Fries, Nov. Fl. Suec. Ed. 1 (1816). Presl's name dates from 1819 (Fl. *Cechica*), and Kosteletzky's (1824) in Cl. Fl. Böh. Phan. p. 24.—A. B. Mr. Bennett adds, in answer to query, that this is "a state only, and can be produced by local conditions.—W. R. A.

P. lucens, L. v. *coriaceus*, Nolte, Gloucester, August, 1893.—C. Waterfall. Certainly not Nolte's plant, but an autumnal state of *P. lucens*, L.—A. B.

P. Friesii, Rup.? Sutton Park, Warwick, 19, viii, 1893.—H. S. Thompson. Is *P. obtusifolius*, Merten's and Koch!—A. B.

Zannichellia brachystemon, Gay. Welland Common, Worc., Aug., 1893.—C. Waterfall. Probably correct, but I believe Gay's names to be untenable, as was shewn many years ago by Leighton in a translation from the Ann. Scient. Natural.—A. B.

Z. pedunculata, Reichb. Kessle, E. Yorks, July, 1892.—C. Waterfall. Llandudno, Carnarvonshire, July, 1892.—J. L. Williams. The Swedish idea of Fries' plant is a plant with a common peduncle, and pedicels; but here we have only the pedicels, which most (all?) forms have; so I could not name these as above.—A. B.

Carex? Co. Down, 1, vi, 1893.—C. H. Waddell. Is *C. lævigata*, Sm.—A. B.

C. flava, L. Curious sport, Aughnadarragh L., Co. Down, Aug., 1893.—C. H. Waddell. Is *C. Oederi*, auct. plur., but not of Ehrh. *C. chrysites*, Link.; *C. flava*, *β Oederi*, Ehrh.; *γ cyperoides*, Marsson; *C. flava*, L., v *cyperoides*, Bailey.—A. B.

Deyeuxia strigosa, Kunth. Oakmere, Cheshire, July, 1893.—Leg., J. A. Holt, com. J. H. A. Stuart. Doubtless a slip for *D. neglecta*, Kunth, which is the Cheshire plant.—A. B.

Glyceria declinata, Breb. Pease Marsh, Surrey, 2, ix, 1893.—A. H. W. Dod. Large, if correct.—A. B. Later Mr. Bennett agreed with me that it is probably only a result of the dry season of last year, and not *declinata*.—W. R. L.

Bromus, Clover field, Woodchester, W. Gloucestershire, June, 1893.—H. P. Reader. Apparently *B. secalinus*, L.—A. B.

B. mollis, L., v. *Lloydianus*, Syme. Guernsey, 23, v, 1893.—

M. Dawber. Near this probably, but the awns are straight; in Lloydianus true, they are distinctly bent back.—A. B.

Festuca pratensis, auct. × *Lolium perenne*, L. = *Lolium festucaceum*, Link. = *Festuca loliacea*, Huds. Meadow by Wych Bridge, Cheshire, 4, viii, 1893. I send a few sheets of what, I believe, is usually put under this hybrid, which I take to be synonymous with *F. loliacea*, Huds. (1,730c of Lond. Cat.), and *Lol. festucaceum*, Link (1,746 × ibid.) I fail to see, however, how they differ from the simple spiked form of *F. pratensis*, Huds., the section of the rachis, which is the only tangible character I know by which to separate them, being usually between "flattish" and "triangular." I frequently find the spike quite simple and truly distichous (*F. loliacea*, Huds.), and more or less branched (var. *pseudo loliacea*, Hack?) on the same plant, and sometimes, also, much branched panicles (typical *pratensis*). In the case, however, of the plant sent, I did not see any tendency to branch, but I can detect no difference in the plant from the simple spikes of plants which also bear branched ones. I seek enlightenment on the varieties.—A. H. W. Dod. I am afraid I do not see the point of Mr. Dod's note. I thought that long ago Mr. Watson decided by actual cultivation that *F. loliacea*, Huds, was simply a state of *pratensis*: but Syme thought there might be another plant which he did not know, or had not seen, which Fries puts under *Brachypodium*, and Godrun under *Glyceria*, but others consider it a hybrid as Mr. Dod has it *Festuca pratensis* × *Lolium perenne*; but I do not see how his plant differs from Watson's specimens, and so they are really only depauperised *pratensis*, not a hybrid.—A. B.

Agropyron pungens, R. and S. E. Yorks.—C. Waterfall. *A repens*, Beauv. only.—A. B.

A. acutum, R. & S. Goodrington Sands, near Paignton, S. Devon, June, 1888.—C. Waterfall. May be correct, but uncertain.—A. B.

Lastræa dilatata, Prest. v. *collina*, Bab. Loughrigg Fell, Westmoreland, Aug. 1891.—C. Waterfall. May be correct, but I do not know the variety, but if figures and descriptions are consulted, this does not seem prolonged enough in the upper part of the frond for that variety, as Newman figures it.—A. B.

TREASURER'S BALANCE SHEET, 1893.

	£	s.	d.	£	s.	d.
Balance from 1892				5	19	3½
Subscriptions, 1893				7	15	0
				£13	14	3½

	£	s.	d.	£	s.	d.
Printing—W. Sessions,						
Desiderata List ...	2	7	6			
9th Report	2	19	0			
				5	5	6
Distributor's Expenses				0	16	2
Secretary's ,, ...				1	14	6
Treasurer's ,, ...				0	4	9
Presentation of Fascicles of Willows ...				3	0	0
Balance				2	12	4½
				£13	14	3½

J. T. POWELL, *Hon. Treasurer.*

SUBSCRIPTIONS, 1893.

	£	s.	d.
Cotton, Mrs.	0	5	0
Crosfield, A. J.	0	5	0
Dawber, Miss	0	5	0
Geldart. H. D.	0	5	0
Gray, Rev. J. D.	0	5	0
Gregory, Mrs.	0	5	0
Griffith, J. E.	0	5	0
Hall, A. B.	0	5	0
Higgins, Miss	0	5	0
Levinge, H. L	0	5	0
Linton, Rev. E. F.	0	5	0
Lomax, Mrs.	0	5	0
Mennell, H. T.	0	5	0
Nicholson, D.	0	5	0
Painter, Rev. W. H.	0	5	0
Paulson, R.	0	5	0
Phillips, R. M.	0	5	0
Powell, J. T.	0	5	0
Praeger, R. L.	0	5	0
Reader, Rev. H. P.	0	5	0
Salmon, C. E.	0	5	0
Salmon, E. S.	0	5	0
Somerville, A.	0	5	0
Standen, R. S.	0	5	0
Steuart, Capt. A.	0	5	0
Vaughan, Rev. J.	0	5	0
Waddell, Rev. C. H.	0	5	0
Ward, F. H.	0	5	0
Waterfall, C.	0	5	0
Williams, J. L.	0	5	0
Woodhead, T. W.	0	5	0
	£7	15	0

THE

ELEVENTH ANNUAL REPORT

OF THE

WATSON
Botanical Exchange Club,

1894-95.

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Watson Botanical Exchange Club.

REPORT FOR 1894—1895.

There is a decided falling off this year in the number of contributors to the Club and specimens sent; 1683 specimens were received from 19 members. The general quality of the specimens sent was good, though some members still persist in sending single specimens, which practice is likely to render criticism uncertain and be of no benefit to the Club members.

The best thanks of the Club are due to those who have kindly examined and reported on critical plants:—Messrs. E. Hackell, A. Bennett, F. J. Hanbury, Revs. E. F. Linton, E. S. Marshall and W. Moyle Rogers.

Below are appended the names of contributors with the number of plants respectively contributed:—

Miss M. E. Dawber	165
Capt. A. H. Wolley-Dod, R.A.	187
Mr. H. D. Geldart	16
Rev. J. D. Gray, M.A.	87
Mrs. Gregory	14
Miss D. M. Higgins	33
Rev. H. W. Lett	64
Col. H. C. Levinge, J.P., D.L.	355
Rev. E. F. Linton, M.A.	123
Mrs. E. A. Lomax	12
Rev. W. H. Painter	212
Mr. R. L. Praeger	50
Rev. H. P. Reader	63
Mr. C. E. Salmon	12
Mr. E. S. Salmon	51
Mr. R. H. Standen, F.L.S.	5
Capt. J. H. A. Steuart	64
Rev. C. H. Waddell, M.A.	79
Mr. T. W. Woodhead	91
	1683

W. R. Linton, Distributor for the year 1894-5.

Thalictrum collinum, Wallr. Rocks near Black Head, Co. Clare, 12th July, 1894.—Leg. P. B. O'Kelly. *Vide* Report Watson Exchange Club, 1893, p. 2.

Mr. Bennett pronounces this plant to be *T. collinum*, Wallr. = *T. Jacquineanum*, Koch., and not *T. majus* or *flexuosum* as I had named it (*vide* Report, '93-94, p. 2).

On referring to Mr. Egerton Warburton's little handbook of Synonyms of British Plants, I find it there stated (p. 157) that *T. collinum*, Wallr. = *T. saxatile*, D. C., but as my specimens of the latter, from the Gogmagog Hills, do not agree with the Clare or Arran plants, I again referred the matter to Mr. Bennett, who, while remarking that it is difficult to say what the Gogmagog plant really is, states that he is quite satisfied that the Clare and Arran plants are not the *T. saxatile* of *Schleicher* and Dr. Candoll. In this uncertainty I venture to send out another batch to the Club in the hope that further investigation may tend to throw some light on the subject of the identity of these *Thalictra*. It will be observed that the specimens differ among themselves considerably, especially as regards the size and cutting of the leaves.—H. C. L.

Besides the above identification with *Jacquineanum*, *T. collinum*, Wallr., appears to be the same as *T. flexuosum* (Bernh.), Rchb., *T. saxatile*, Bab., and *T. minus*, L., v. *montanum*, Syme.

T. —— Near Tenby, S. Wales, August, 1894. Coll., Mrs. Davidson.—H. P. Reader. *T. dunense*, Dum.—A. B.

Ranunculus —— Hooe Marshes, near Pevensey, E. Sussex, 6th May, 1894.—E. S. Salmon. *R. Drouettii*, Schultz.—A. B. *R capillacus*, Th. (*Drouettii* vel. aff.)—W. P. Hiern.

R. Drouettii, Godr., v. *Godronii*, Gren. Road ditch, Quarry Bog, Knockdrin, Co. Westmeath, 15th June, 1894. Specimens of this plant, grown in shallow water, were sent to the Club under this name in 1891, and were accepted as correct (*vide* Report, 1891-2, p. 3); but this summer, owing to the excessive rain, the water being consequently much deeper, the plant seems to have developed a different form.—H. C. Levinge. By the flower, etc., it looks correct.—A. B.

R. —— Bogholes, Ballymagin, near Maralin, Co. Down, 10th July, 1894.—H. W. Lett. I think *R. radians*, Rev.—W.R.L.

R. —— Canal, near Scarva, Co. Down, 26th June, 1894.—H. W. Lett. *R. peltatus*, *v. elongatus*, Bab.—A. B.

R. acris, L., v. *tomophyllus* (Jord.). Storthes, Birkby, Huddersfield, S.W. Yorks., July, 1894.—T. W. Woodhead. Yes, but *tomophyllus* appears to be identical with *R. acris.*, L., differing only in having its leaf segments always narrow, whilst in the type the leaf-segments are variable. See Journ. of Bot., xxxvii, 140-1.—W. R. L.

R. acris, L., c. *vulgatus* (Jord.). Storthes, Birkby, Huddersfield, S.W. Yorks., July, 1894.—T. W. Woodhead, A much less cut-leaved form than our southern plant usually is.—A. B.

Papaver somniferum, L. Herm., 26th June, 1894.—M. Dawber. Seems to be the v. *glabrum*, H. C. Watson.—A. B.

Corydalis lutea, DC. Yearton Hale, near Egremont, Cumberland, June, 1894. Coll. H. Adair, Com. J. Adair.—J. H. A. Steuart. Ballyarthur, Co. Wicklow, 8th August, 1894, Leg. R. Bayley.—H. C. Levinge. *Neckeria lutea*, Scop., Lond. Cat. Ed. 9.—A. B.

Barbarea —— ? Magheradin, Co. Down, 10th July, 1894.—C. H. Waddell. *B. vulgaris*, R. Br.—W. R. L.

B. intermedia, Bor. Roadside, Loughbrickland, Co. Down, April and July, 1894.—H. W. Lett. Waste ground, Saintfield, Co. Down, 1st June, 1894.—C. H. Waddell. Both correct. Mr. Waddell had a few pieces of *B. vulgaris* mixed with his.—W.R.L.

Raphanus —— ? Wiston Mill, Suffolk, August, 1894.—J. D. Gray. I believe this to be *R. sativus*, L.—W. R. L.

Viola persicæfolia, Roth. Newton, Gort, Co. Galway, 19th June, 1894. Leg. P. B. O'Kelly.—H. C. Levinge. In the 9th Ed. of the London Catalogue the name *V. stagnina*, Kit., is gone back to, and I think wisely. Until as remarked by Mr. N. E. Brown (Eng. Bot. Sup., p. 31) specimens of *stagnina* have been compared with Roth's types (if existant ?) it will be well to keep to Kitaibel's name.—A. B.

Polygala vulgaris, L., b. *grandiflora*, Bab. Grassy banks of stream, Glendun, Co. Antrim, 5th July, 1894.—H. W. Lett. Certainly *not* the *grandiflora* of Babington, which has quite a shrubby growth, the leaves are very thick, and the lower leaves much like those of the box ; the wing sepals are also very much more apiculate. Prof. A. W. Bennett (Journal of Botany, 1877, p. 171) refers to this as not being the v. *grandiflora*, DC., this being so I do not see how the plant can retain Babington's name ; it is decidedly against the laws of nomenclature to have two vars. *grandiflora* under one species, whatever Dr. Candoll's plant may have been. If the name is altered I would suggest v. *Babingtonii* for it. Mr. Lett's specimens are nothing like so near *grandiflora* as I have gathered on the Dover cliffs in Kent.—A. B.

Silene noctiflora, L. ? Clover field, Crossgar, Co. Down, 23rd July, 1894. Seems to have come with the seed.—C. H. Waddell. Is *S. dichotoma*, L.—W. R. L.

Cerastium arvense, L., v. *Andrewsii*, Syme. Poulsallagh, near Black Head, Co. Clare, 19th May, 1892. I hardly think this plant is worthy of being placed as a variety even of *C. arvense;* it certainly is not so hairy as the type found in the East of Ireland, and Mr. More has justly remarked that this variety is to *C. arvense* what *Helianthemum vineale* is to *H. marifolium*.—H. C. Levinge. Dr. Boswell Syme's name must be given up; he overlooked that Babington (Man. Brit. Bot., Ed. 2, p. 56, 1847) named exactly the same plant *B. strictum*, but Koch, Syn. Fl. Germ. et Helv., Ed. 2, p. 136, 1843, has a *B. strictum* which may not be the same. But the plant seems substantially the same as the v. *glabrescens*, Mert. and Koch, Dent. Fl. 3, 348 (1831), except perhaps that Andrews' plant had usually one flowered peduncles; v. *glabellum*, Le Debour, Fl. Ross. 1, must be somewhat near this. Curiously tufted forms of this species may be found near the sea-coast (Norfolk and Suffolk !), and Mr. Levinge's specimens are not good representatives in my idea of Syme's plant.—A. B.

Stellaria umbrosa, Opitz. Kimberton, Salop, May, 1894.—W. H. Painter. I do not think the authority given ever named a plant; the mistake is however so common, it may be well to point out that Opitz was F. Opitz, a doctor of Medicine, of Prague, contemporary of, and a collaborateur with Opiz. Opiz, named after him *Mentha Opitziana*, Opiz, Nomenclator Botanicus, p. 72, (1831), the botanical author's name being Philip Maximilian Opiz. He was the author and co-author with Count Berthold of many botanical works, and the namer of a large number of species as Bohemian plants; as an example he gave a list of Bohemian Veronicas under 34 specific names in his Naturalientausch, No. 8, pp. 109-113.—A. B.

Elatine Hydropiper, L. Lough Beichan, Co. Down, June, 1894.—H. W. Lett. Excellent specimens of this rare plant.

Hypericum humifusum, b. *decumbens*, Petermann. Jersey, 14th July, 1888.—M. Dawber. The same as specimens to which Dr. Boswell directed the application of this name, but I have not seen Petermann's plant, which I suppose is described in Reichenbach's Flora Saxonica, Ed. 1.—A. B.

Trifolium pratense v. *sylvestre*. Grassy slopes above Cape Cornwall, Cornwall, 10th August, 1894.—E. S. Gregory. This variety is characterised according to Syme's English Botany by the slender stem, the smaller stipules, calyx teeth spreading in fruit, and the deeper colour of the corolla. Mr. Gregory's specimens agree with Syme's description in several of the features, and therefore is probably correctly named; but I am not well well acquainted with the variety.—W. R. L.

T. repens (var. ?). Cliff overhanging sea, Newlyn, Penzance, Cornwall, Aug., 1894.—E. S. Gregory. A frondescent state which this and other species of clover occasionally assume. As only one example was sent there is none available for distribution.—W. R. L.

Astragalus hypoglottis, L. Near Killeany, Gt. Isle of Arran, Galway Bay, 14th June, 1894.—Leg. P. B. O'Kelly. Is an exceedingly rare plant in Ireland, there being only one locality where it is known to grow in the Gt. Island of Arran.—H. C.

Levinge. *A. danicus*, Retz., is the proper name for this. Lange had a very careful and exhaustive paper on this in a Copenhagen Botanical Journal.—A. B.

Coronilla varia, L. Sharpenhoe, Beds., July, 1894. Found growing very wild, but the place was once a cottage garden.—D. M. Higgins.

Vicia —— ? Sandy hills, Kirkiston, Co. Down, May, 1894.—C. H. Waddell. A small state of *V. angustifolia*, Roth.—W. R. L.

Rubus Rogersii, Linton (Journ. Bot., 1894, p. 213). Panicles; Peatmoss, Saintfield, 27th Aug., 1894. Barren stem; Peatmoss, Aughnadarragh, near Saintfield, Co. Down. 1st Sept., 1894.—C. H. Waddell. Excellent representative specimens.

R. rhamnifolius, W. and N., Form. Sutton Maddocks Wood, Salop, 27th July, 1894.—W. H. Painter. "Rightly named I suppose, Not quite our ordinary English *R. rhamnifolius*."—W. Moyle Rogers.

R. rhamnifolius, W. and N. Sutton Maddocks, Salop, 11th Aug., 1894.—W. H. Painter. "Yes, about the average English form."—W. M. R.

R. erythrinus, Genev. Sutton Maddocks, Salop, 14th Aug., 1894.—W. H. Painter. "Right."—W. R. L. and W. M. R.

R. pubescens ? Ditch on border of wood, Saintfield, Co. Down, 21st Aug., 1894. Flowers very large, white; stamens long, white, exceeding the greenish styles; sepals strongly reflexed in flower and fruit.—C. H. Waddell. Only one not very good specimen sent on which it is impossible to give any satisfactory decision. A good series of specimens should be sent another season.

R. scabrosus, P. J. Muell. Hedge bank, Saintfield, Co. Down, 21st Aug., 1894. Petals white; stamens white, exceeding the green styles.—C. H Waddell. *R sylvaticus*, W. and N.—W. R. L.

R. Leyanus, Rogers (not *R. Drejeri*, see Journ. Bot., 1894, p. 374). Open Wood, Saintfield, Co. Down, 21st Aug., 1894.—C. H. Waddell. "I have seen a Saintfield form of *R. Leyanus* of Mr. Waddell's collecting, but none of these species (mixed ?) belong to it. The panicle seems undoubtedly *R. pulcherrimus*, Neum.."—W. Moyle Rogers.

R. Drejeri, G. Jensen. Knock Drin, Co. Westmeath, 22nd July and 16th Aug., 1894. This appears to me to agree, in all respects, with the plants Messrs. E. F. Linton and Moyle Rogers named for me last year; it is from the same locality though not from the same plants.—H. C. Levinge. "Too scrappy, I think, for certain determination; but it is certainly not my *R. Leyanus* ("*R. Drejeri*, G. Jensen," of my essay)."—W. M. R.

R. rudis? Ditchbank, Rowallane, Saintfield, Co. Down, 18th August, 1894.—C. H. Waddell. Not *rudis*, W. and N.; a form of *Kœhleri*,—W. R. L. This just matches a Herefordshire plant which Foche has named *R. macrostachys*, P. J. M. (v. Journ. Bot. p. 101, 1895, under *fuscus*) and which I have seen for other English Counties and from two localities in Co. Dublin—W. Moyle Rogers.

R. fuscus, W. and N, fide E. F. Linton. N. side of Knock, Ross, Co. Westmeath, 18th July and 10th Sept., 1894.—H. C. Levinge. I suppose a form of *R. fuscus*, W. and N., or something near it.—W. M. R.

R. Cæsius, var.? Rocky wooded hill, Hellsfell, Kendall, Westmoreland (roots transplanted and grown at Saintfield, on rockwork), Sept., 1894.—C. H. Waddell. A form of var. *aquaticus*, W. and N.—W. R. L.

R. ——. Hedges, Hinckley, Leicester, July, 1894.—H. P. Reader. I suppose *R. cœsius* × *R. corylifolius*.—W. M. R.

Potentilla ——? Bradley, Huddersfield, July, 1894.—T. W. Woodhead. *P. recta* L.—W. R. L.

P. procumbens × *reptans*. Bar Mere, Cheshire, 5th Aug., 1894. Name agreed to by Mr. Marshall.—A. H. W. Dod.

Rosa Doniana. Woods, Halling, W. Kent, 8th July, 1894. Name confirmed by Mr. Rogers.—A. H. W. Dod.

R. —— Hedge bank, Drumcro, near Magheralin, Co. Down, 10th July, 1894.—C. H. Waddell. Only one sheet sent. Seems an *involuta* form, which is a hybrid according to the present continental view.

R. tomentosa, Sm., var. Kimberton, Salop, 12th July, 1894.—W. H. Painter. "I suppose this may go to *scabriuscula*, Sm., though it has not the straight and slender prickles characteristic of it. But a really good series of it seems to me necessary for a positive determination even of its species."—W. M. R.

R. subglobosa, Sm. Sutton Maddocks, Salop, 30th July, 1894.—W. H. Painter. "I should say a form of *R. tomentosa*, Sm., going off from type in the direction of var. *subglobosa*, but with leaf serration far too compound, and petiole too glandular for that variety.—W. M. R.

Rosa sylvestris, Lindl. Ham Common, Surrey, 7th July, 1894. Named by Mr. Rogers.—A. H. W. Dod.

R. sylvestris, Lindl. Lane near Trottercliffe, W. Kent, 28th June, 1894.—A. H. W. Dod. "This is of course a form of *R. tomentosa*, and I think not improbably var. *sylvestris* (Lindl.), though in that the leaves are usually still greener above and still more glandular beneath."—W. M. R.

R. biserrata, Merat. Sutton Maddocks, Salop, July, 1894.—W. H. Painter. "I should rather call it *R. dumalis*, Bechst.; but *biserrata* may be its right name. It is hardly the plant which I call *R. vinacea*, Baker, though it comes near it."—W. M. R.

R. urbica, Leman. Sutton Maddocks, Salop, Aug., 1894.—W. H. Painter. "Too glandular for *urbica*, and with different foliage. One of the many intermediate *canina* forms."—W. M. R.

R. tomentella, Leman. Sutton Maddocks, Salop, Aug., 1894.—W. H. Painter. "Yes."—W. M. R.

R. aspernata, Déségl. Darenth Wood, W. Kent, 16th June, 1894.—A. H. W. Dod. "I suppose this must go under *R. aspernata*, Déségl.; but the typical plant has compound leaf-serrations and much more glandular leaflets and petioles.—W. M. R.

R. glauca, Vill., var. *transiens*, Crép. Near Knighton, Salop, 16th Aug., 1894. Mr. Rogers confirms the species, the varietal name I suggest.—A. H. W. Dod. "Good *transiens*."—W. R. L.

Pyrus latifolia. Hedgebanks at Meavy, S. Devon, collected for Mrs. Lomax, June, 1894.—Mrs. E. A. Lomax.

P. rotundifolia, Bechstein, Forst botanik (1843) according to Mr. N. E. Brown in Eng. Bot. Supp. p. 164 (1892), and specimens he has so named in my herbarium. It is the same as *P. latifolia*, Syme, in Bot. Ex. Club Report for 1872-4, p. 19.—A. B.

Callitriche ——. Mr. Bennett remarks generally,: "Most of these *Callitriches* are in too immature state for absolute certainty; the gathering of these plants without mature fruit is really a waste of time.

C. ——. Boggy pools on Mountain, Rosstrevor Mountain, Co. Down, 1894.—H. W. Lett. Material very poor, but I believe *C. stagnalis*, Scop.—A. B.

C. ——. Water ditch beside Canal, near Tanderagee Railway Station, Co. Armagh, 26th June, 1894.—H. W. Lett. *C. stagnalis*, Scop.—A. B.

C. ——. Bog, Ferry Noogan, near Scarver, Co Armagh, 26th June, 1894.—H. W. Lett. *C. hamulata*, Kütz.—A. B.

C. ——. Lower Demesne, Tanderagee, Co. Armagh, 13th Aug., 1892.—H. W. Lett. *C vernalis*, Kütz.—A. B.

Lythrum Salicaria, L. *b Canescens*, Koch. ? Lamorna Cove, W. Cornwall, Aug., 1894.—E. S. Gregory. Agrees with Koch's definition more or less, but I have not seen specimens.—W. R. L.

Epilobium ——. (1) Hinckley, Leicester, July, 1894.—H. P. Reader. (2) Hinckley, Leicester, July, 1894.—H. P. Reader. If a hybrid, I should say *E montanum* × *roseum*, though the indications of *roseum* are not strongly present. Both (1) and (2) are I consider the same, (1) being nearer to type *montanum.*—W. R. L.

Erigeron mucronatum.—Naturalised on walls, St. Peter's Pool, Guernsey, July, 1894.—M. Dawber.

Gnaphalium undulatum, L. Beaumont, Jersey, 3rd Aug., 1894.—M. Dawber and J. D. Gray. The latter adds that it has been thus named by Prof. Babington, and seemed to be rapidly increasing in the locality. This appears to be a native of S. Africa which occurs subspont. in S. Italy, N. W. France, and probably elsewhere.

Artemisia Stelleriana, Bess Sand dunes, North Bull, Dublin, 1st Aug., 1894.—R. L. Praeger.

Crepis nicæensis, Balb. Bedford Rd., Luton, Beds., 21st June, 1894.—D. M. Higgins. *C taraxacifolia,* Thuill. A. B. and W. R. L.

Hieracium —— ? Ramsden Clough, near Holmfirth, S W. Yorks., 10th Aug., 1894.—Styles yellow.—T. W. Woodhead. *H. argenteum,* Fr.—F. J. Hanbury.

H. —— ? Drop Clough, Slaithwaite, S. W. Yorks., 14th Aug., 1894. Styles yellow. No. 1.—T. W. Woodhead. *H. vulgatum,* Fr.—F. J. Hanbury.

H. vulgatum, Fr., v. *sciaphilum,* Uechtr. Bilberry, near Holmfirth, S. W. Yorks., 9th Aug., 1894.—T. W. Woodhead. Placed as a species in L. Cat. 9th Ed., *H. sciaphilum,* Uechtr.

H. boreale, Fr., var. ? Drop Clough, Slaithwaite, S.W. Yorks., 14th Aug., 1894. Styles yellow.—T. W. Woodhead. *H. boreale,* F. R.—F. J. Hanbury. On opening one or two of the flowers the syles appear to have been dark. Were they really yellow? —W. R. L.

Phyllodoce taxifolia. Surendalen, Norway, June, 1894.—E K. Higgins. Sent by Miss D. M. Higgins.

Statice —— Shore, Dundrum, Co. Down, Aug., 1894.—C. H. Waddell. *S. rariflora,* Drej., as to the nomenclature see Journ. of Bot., xxxii, 364 and 99.—W. R. L.

Gentiana germanica, Willd. Harlington, Beds., 17th Aug, 1894.—D. M. Higgins.

Symphytum peregrinum, Ledeb. Sutton Maddocks, Salop, Aug., 1894.—W. H. Painter. Passed by Mr. Bennett. New record for county.

Myosotis Balbisiana, Jord. Icart cliffs, Guernsey, 30th May, 1894. I believe *M. Balbisiana* has not been recorded from Guernsey before, so I think I ought to say that although the accompanying specimens were collected by me, Mr. F. H. Ward, of Tooting, was with me, and noticed it first.—M. Dawber.

Linaria repens × *sepium?* Beaumont, Jersey, July, 1894.—This seems to differ from the Guernsey specimens sent.—J. D.

Gray. Flowers seem whiter, sepals slightly more linear, and leaves larger and more lax. I think may be *sepium*, but very much on the *repens* side.—W. R. L.

Bartsia Odontites (*divergens ?*). Marshy ground, Lamorna Cove, Cornwall, Aug., 1894.—E. S. Gregory. *B. verna*, Reichb.—W. R. L.

Euphrasia —— Bushy hillsides near Woodchester, W. Gloucester, Aug., 1894.—H. P. Reader. *E. nemorosa*, H. Mart., I should say.—W. R. L.

Mentha gentilis, L. Dee bank near Shocklack, Cheshire, Aug., 1894.—A. H. W. Dod. According to the continental view, a hybrid of *arvensis* × *viridis*.—W. R. L.

M ——. Margin of peat bog, Grashill, King's Co., 19th Sept., 1894.—H. W. Lett. *M. hirsuta*, L.—W. R. L.

M. ——. Drain at margin of peat bog, Philipstown, King's Co., 19th Sept., 1894.—H. W. Lett. Three pieces, of which two were *M. sativa*, L., and one *M. hirsuta*, L.—W. R. L.

M. ——. Drain at edge of peat bog, Phillipstown, King's Co., 19th Sept, 1894.—H. W. Lett. *M sativa*, v. *subglabra*, Baker.—W. R. L.

M. ——. Cultivated field of Flax, Knock Iveagh, Co. Down, 4th Sept., 1894.—H. W. Lett. *M. sativa*, L. v. *subglabra*, Syme.—W. R. L.

M arvensis, var. ? (1). Damp paths in woods, Stroud, W. Gloucester, August, 1894.—H. P. Reader. A form of type *arvensis*.—W. R. L.

M. arvensis, var. ? (2) Damp footpaths in Woods, Stroud, W. Gloucester, August, 1894.—H. P. Reader. I consider var. *Allionii*, Bor.—W. R. L.

M. sativa, L. Roadside pasture, Fathom Park, between Ameath and Newry, Co. Armagh, 22nd Aug, 1894.—H. W. Lett, *M. arvensis*, near v. *Nummularia* (Schreb).—W. R. L.

Euphorbia Esula, L., v. *Pseudo-Cyparissias*, Jord. Riverside, Mirfield, S. W. Yorks., 1st Sept., 1894. This is the plant I distributed in 1893 as *E. esula*, L., but which I now believe to be the var. *Pseudo-Cyparissias*, Jord.—T. W. Woodhead. Appears to be correctly named judging by the description of this plant.—W. R. L.

Salix fragilis, L., v. *britannica*, F. B. White. Kimberton, Salop, July, 1894.—W. H. Painter.

S. cinerea, L., with style. Bournemouth to Parkstone, Dorset, 29th April and 25th Sept., 1892. It is not at all unusual in the S. of England to find *S. cinerea* with a more or less prolonged style, while in Scotland this species generally has the stigmas sessile.—E. F. Linton.

S. aurita × *viminalis*. Origin Holme, Hunts., Hort., Bournemouth, 3rd April and 18th June, 1894.—E. F. Linton.

S. aurita × *cinerea* (84), with double ovaries. Origin Beds., Hort., Bournemouth, 14th April and 29th June, 1892.—E. F. Linton.

S. aurita × *cinerea* (10). Origin, Holme, Hunts., Hort., Bournemouth, 21st April and 28th June, 1892.—E. F. Linton.

S. lutescens, Kern. = *S. aurita* × *cinerea*. Dickenstone, Biddulph, Staffs., May and July, 1894. T. Law.—W. H. Painter.

S. Caprea, L., with a style. Bailey Gate, Dorset, 2nd May and July, 1892.—E. F. Linton.

S. Grahami, Baker, = *S. herbacea* × *Myrsinites*. Hort., Bournemouth, 18th May and 29th June, 1894.—E. F. Linton. See Annals Scot. Nat. Hist., 1894, p. 239.

Epipactis purpurata, Sm. Near Catsfield, E. Sussex, 8th Aug., 1894. Stems many, clustered.—E. S. Salmon. Smith's plant was a monstrosity, and the name the plant intended by Mr. Salmon should bear seems to be *E. violacea*, Boreau, although M. Camus, in his Catalogue des Plantes de France, uses the name *violacea*, Durand-Duguesney, but according to Mr. Pryor, J. of Botany, p. 71, 1881, in his Cat. Pl. de Lisieux, p. 102 he put it under *latifolia*. But Mr Salmon's specimen I call *E. latifolia* simply. At the place cited Mr. Pryor gives the original description, and interesting remarks on the plant as a British plant.—A. B.

Sparganium ——. R. Mole, near Rice Bridge, Surrey, 2nd Sept., 1894; Ain Mill, Surrey, 18th Sept., 1894.—C. E. Salmon. Battle E. Sussex, 1st Sept., 1894.—E. S. Salmon *S neglectum*, Beeby.—A. B.

Ruppia rostellata, Koch. Pool at Mare de Carteret, Guernsey, June, 1894. New Record for Guernsey.—J. D. Gray.

Zannichellia pedunculata, Reichb. Hunstanton, Norfolk, Sept., 1894. Sir Henry Collett.—H. C. Levinge. Most authors seem to consider that this name and *Z. pedicillata*, Fries., Nov. Fl. Snec. Mant., 1, p. 18 (1832) represent the same plant. But Fries himself evidently did not think so (Mant 3, p. 133). W. Schumann in Fl. Brasiliensis places all the names under *Z. palustris* and then has a var. *pedicillata*, Wahl., in which he gives characters that will fit Reichenbach's plant but hardly Fries! Fries says distinctly "*fructibus umbellatis pedunculatis.*" Mr. Levinge's specimens have the fruit itself pedicelled, but the umbel itself is nearly sessile and it may be the plant intended by Reichenbach, it is not that meant by Fries, I believe.—A. B.

Carex paniculata, L., form or state? Near Shirley, Derbyshire, 15th July, 1887. So imperfect in fructification as to be supposed at first to be of hybrid origin; growing with typical *C. paniculata* that tormed its fruits perfectly. The sterility might be supposed due to late spring frosts, but that the few sterile plants appeared to be almost if not quite entirely sterile, and the generality of the plants wholly fertile.—E. F. Linton. The plant is perhaps less robust than usual, but in all else the suggestion of hybridity seems *to me* hardly borne out. Perhaps the collector has sent some particulars of situation, plants associated with, &c., &c.—A. B.

Sesleria coerulea, Scrp., v. *flavescens*, More. Castle Taly, Co. Galway, 16th May, 1892.—H. C. Levinge, I suppose this is what is called v. *alba*, Camus Cat. des Pl. de France, p. 292 (1888); but it was named *P. lutea* by Opiz. But several nice points arise over this; Opiz described it in his Fl. löh supt. Cent. 6, n. 560, under *Sesleria coerulea*, Arducino animado, sp. 2, 18 (1764), not Schpuli ed. 2 (1772), while Derchtold and Opiz in the Fl. Böh. (part 2, 1836) p. 491, place it under *Sesleria calcaria*, Persom (1805), Syn., pl. 1, 72. They also quote "*Sesleria coerulea* variet. flor. luteo albo Knaf in litt." I have not seen Andrews' work so do not know whether there is any reason if his name is untenable? I see that Nyman quotes "*S coerulea*, Ard., 1763," so it seems that it will have to bear his name. In the Exchange Club Report for 1892, p. 392 (1893) I quoted this plant as *S. coerulea*, Arduin, var. *luteo alba*, Opiz, Böh. Gen., p. 14, 1823.—A. B.

Koeleria cristata, var. Luton, Beds., 6th Sept., 1894.—D. M. Higgins. Miss Higgins' specimens seem to be the var. *gracilis*, Boreau,—A. B.

Poa polynoda, Parn? Wall at Eltham, W. Kent, 15th July, 1894. Prof. Hackel wrote *P. compressa* on the label. I don't know whether he meant to exclude *P. polynoda*, with the description of which this appears to agree.—A. H. W. Dod.—*P. compressa*, L.—E. Hackel.

Festuca elatior, L. var. *loliacea*,—Huds. Knock Ross, Co. Westmeath, 18th July, 1894.—I am doubtful if some of this may not be the var. *pseudo-loliacea;* I find the two forms on the same plant!—H. C. Levinge. Both are merely states of *F. elatior*, and therefore by no means impossible on the same plant.—W. R. L.

Lolium ——. Hinckley, Leicester, July, 1894.—H. P. Reader. *L. italicum*, A. Bv. var. *muticum*, D. C.—E. Hackel.

Lastrœa Filix mas, Prest. v. *Borreri*, Newm., Bilberry, near Holmfirth, S. W. Yorks., 9th Aug., 1894.—T. W. Woodhead. Not v. *Borreri* which has yellow fronds with sharply truncate pinnules.—W. R. L.

Asplenium lanceolatum, Huds. *(microdon?)*—Old wall, among the masonry, Newlyn, Penzance, Cornwall, 16th Aug., 1894.—E. S. Gregory. I should say not the variety.—W. R. L.

Correction of Report for 1894.

I should like to remark, with reference to last year's report, that the plant I sent as *Barbarea intermedia*, Bor., from Witley, was gathered in company with the Rev. E. S. Marshall, whose specimens were confirmed by Svanté Murbeck. It is just possible, but not I think the case, that I mixed a specimen or two of *B. vulgaris* with the others.

My *Glyceria decclinata*, Brit., was also gathered with Mr. Marshall, at Pease Marsh. Prof. Hackel confirmed the naming of specimens sent to Botanical Exchange Elub.—A. H. Wolley Dod.

TREASURER'S BALANCE SHEET, 1894.

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THE
TWELFTH ANNUAL REPORT
OF THE
WATSON
Botanical Exchange Club,
1895-96.

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1896.

Watson Botanical Exchange Club.

Report for 1895-96.

The specimens contributed to the Club last year numbered 1224, from 18 members, in both cases rather fewer than at the previous distribution.

The best thanks of the Club are due to those who have kindly examined and reported on critical plants:—Messrs. A. Bennett, F. J. Hanbury, Revs. E. F. Linton and W. Moyle Rogers.

The Club has lost one member by death, Mr. H. C. Levinge, a most valued and generous contributor, to whom the members were annually indebted for a fine series of Irish plants. He died on March 11th, in his sixty-eighth year.

Below are appended the names of contributors with the number of plants respectively contributed:—

Mr. A. Bennett	42
Mr. A. J. Crosfield	6
Mr. P. Ewing	75
Mr. J. E. Griffith	150
Mr. A. B. Hall	65
Miss D. M. Higgins	16
Rev. H. W. Lett	57
Mr. H. C. Levinge	262
Rev. E. F. Linton	60
Mr. H. T. Mennell	88
Rev. W. H. Painter	142
Mr. J. T. Powell	41
Rev. H. P. Reader	54
Mr. C. E. Salmon	44
Mr. E. S. Salmon	40
Mr. R. S. Standen	15
Rev. C. H. Waddell	27
Mr. C. Waterfall	50
	1224

W. R. Linton, Distributor for the year 1895-96.

Ranunculus pseudo-fluitans, "Bab." Hiern, R. Severn, Iron-Bridge, Salop, July, 1895.—W. H. Painter. *R. fluitans*, Lam.—W. P. Hiern.

R. Drouettii, Godr., var. *Godronii*, Gren. Road ditch, Quarry Bog, Knock Drin, Co. Westmeath, June 2nd, 1895. Vide remarks in Report, 1894-5.—H. C. Levinge. *R. Godronii.*—W. P. Hiern.

R. ————, Clanrye River, at Sheep Bridge, near Newry, Co. Down, June 12th, 1895.—H. W. Lett. *R. truncatus.*—A. B. ***R.** floribundus—truncatus.*—W. P. Hiern.

R. ————, Lough Bricklan, Co. Down, (1) May 27th, 1895. (2) June, 1895.—H. W. Lett. (1) *R. floribundus.*—W. P. Hiern. (2) Two pieces different, one *R. floribundus*, Bab., one *R. truncatus ?*—A. B. *R. floribundus.*—W. P. Hiern.

R. ————, Bann River, at Corbet Mills, Co. Down, June 8th, 1895.—H. W. Lett. *R. penicillatus.*—A. B. *R. peltatus*, Schrank, approaching var. *elongatus.*—W. P. Hiern.

R. ————, Deep drain, Tartaraghan Glebe, Co. Armagh, June 21st. 1895.—H. W. Lett. *R. trichophyllus.*—A. B. *R. confusus.*—W. P. Hiern.

Barbarea intermedia, Bor., Dalton Lane, Thirsk, April, 1894.—A. B. Hall. I should name *B. stricta* rather; though in the immature state the specimens are in, it is difficult to be sure.—A. B.

Brassica Napus, L., Knock Drin, Co. Westmeath, Sept. 9th, 1895.—H. C. Levinge. *B. Rapa*, L. Mr. Levinge's plant has the lower and root leaves thoroughly hispid.—W. R. L.

Thlaspi sylvestre, Jord., Canlochan, Forfarshire, July, 1895.—P. Ewing.

Viola silvestris, Reich. Shifnal, Salop, April, 1895.—W. H. Painter. Certainly not a *silvestris* form. To me it appears to be one of the forms named *V. sepincola* or *pernixta*, Jord.—A. B.

Polygala serpyllacea, Weihe. Kimbolton, Salop, July, 1894.—W. H. Painter. A very diffuse form of this, in some of the leaves much like *eu-vulgaris*, but the habit and inflorescence is *serpyllacea.*—A. B.

P. amara, Jacq., *var. austriaca*, Crantz. Cronkley Fell, Teesdale, Yorks., Aug., 1894.—A. B. Hall. *var. alpina*, Reichb. fil. —W. R. L.

Cerastium arvense, L., var. *Andrewsii*, Syme. Burren, Co. Clare, June, 1895, legit P. B. O'Kelly. Vide remarks in Report, 1894-5. Specimens now sent are certainly less hairy than those contributed last year.—H. C. Levinge. Not Syme's variety which is usually one-flowered, with leaves narrow and the midrib taking up more of the under-surface than in these specimens. Of the nine varieties of *C. arvense* figured by Messrs. Hollick and Britton in the Bulletin of the Torrey Botanical Club, March, 1887, Mr. Levinge's specimens approach nearest to v. *angustifolium*, Fenzl, though not that variety, his specimens having the leaves more crowded, and recurved; though this seems to prevail in most with the lower leaves; the coloured plate of v. *oblongifolium*, Holl. and Britton, shows this very conspicuously at the base. I have gathered near Croydon specimens of *arvense* very near Dr. Syme's plant. Mr. Levinge's plant may be worthy of a name, but it requires to be compared with specimens from the area of distribution of the species.—A.B.

Elatine Hydropiper, L., Lough Bricklan, Co. Down, July, 1895.—H. W. Lett. Mixed with *E. hexandra*; two of the small sheets sent are *Hydropiper*, the other *hexandra*, with the penduncles unusually long.—A. B.

Hypericum anglicum, Bertol. Thorp-le-Soken, Essex, Aug. 2nd, 1895.—R. S. Standen. It would be better to discard Bertolinius' name, which has given rise to much discussion, and use *H. elatum*, Ait. Nyman considers this plant only a sub-species of *H. Androsœmum*, L., and uses the name *H. grandiflorum*, Chois. ap Rchb. for it.—A. B.

Trifolium agrarium, L. "Seedfield" near Thirsk, 1894.—A. B. Hall.

Vicia tetrasperma. B. *tenuifolia*, Fries. Farnborough, June, 1891. Mr. A. Bennett says this is very near to if not quite the plant of Fries.—H. T. Mennell. This appears to be a variety of *V. gracilis*, Loisel.—W. R. L.

V. angustifolia, L. Near Thirsk, Yorks., June, 1894.--A. B. Hall.

Rubus latifolius, Bab Near Ty Croes Station, Anglesey, July, 1895.—J. E. Griffith. Yes.—W. M. R.

R. incurvatus, Bab. Colwyn Bay, Denbighshire, July, 1895; new record.—W. H. Painter. Correct.—W. R. L.

R. Lindleianus, Lees, fide W. M. R. Lower Demesne, Tanderagee, Co. Armagh, July 22nd, 1895.—H. W. Lett.

R. pulcherrimus, Neum. Near Colwyn Bay, Denbighshire, July 23rd and July, 1895; new record.—W. H. Painter. Yes.—W. M. R.

R. ———. Edge of wood, Saintfield, Co. Down, Aug. 5th, 1895; a loose-growing bush.—C. H. Waddell. *R. pulcherrimus*, Neum.—W. M. R.

R. Selmeri, Lindeb. Borough Hill, Daventry, Northants, July, 1895. Beacon Hill, near Cromer, Norfolk, Aug. 20th, 1894.—J. T. Powell. Yes.—W. M. R.

R. ———, petals pink, styles green. Lower Demesne, Tanderagee, Co. Armagh, July 22nd, 1895.—H. W. Lett. *R. Selmeri*, Lindeb.—W. M. R.

R. argentatus, P. J. Muell. Braunstone Road, Daventry, Northants, July 25th, 1895.—J. T. Powell. Undoubtedly luxuriant specimens of *R. argentatus*.—W. M. R.

R. pubescens, W. (sp. coll). Near Llanwnda, Carnarvonshire, Sept., 1894.—J. E. Griffith. On this plant I wrote to Mr. Griffith in 1894, "Nearest, I think to *R. pubescens*, Weihe; but only to be associated with it in a very aggregate sense." I then forwarded it to Dr. Focke (with my note), and I quote the following from his letter in reply:—"Looks indeed like our German *R. pubescens.* In your plant the foot-stalks of the terminal leaflet are very short, and the leaflets are tapering towards the base. The true *R. pubescens* has rather long petiolules and a broad emarginate base of terminal leaflet. Therefore I cannot name your plant *R. pubescens*, and I only say it is *near* that species." As some of the leaves now sent by Mr. Griffith have their terminal leaflet less narrowed to the base than in those submitted to Dr. Focke, we can hardly be far wrong if we leave this plant as an allied form under *R. pubescens*, Weihe. —W. M. R.

R. thyrsoideus, Wimm. Borough Hill, Daventry, Northants, July 29th, 1895; fide W. M. R.—J. T. Powell.

R. macrophyllus, W. and N. var. *Schlechtendalii* (Weihe). Near Colwyn Bay, Denbighshire, July, 1895; new record.—W. H. Painter. Yes.—W. M. R.

R. macrophyllus, W. and N. var. *Schlechtendalii* (Weihe). "Briary Bent," Knock Drin, Co. Westmeath, Aug. 28th, 1895. —H. C. Levinge. All *R. Schlechtendalii.*—W. M. R.

R. macrophyllus, W. & N. var. *amplificatus* (Lees). Newnham Hill, Daventry, Northants, July 23rd, 1895.—J. T. Powell. Certainly belongs to aggregate *R. macrophyllus*, W. and N., and apparently a form somewhat connecting var. *Schlechtendalii* (Weihe) with the plant issued as *R. macrophyllus* in Fasc. iv (No. 83) of "Set of British Rubi." The latter was pointed out to me (growing in Branksome Park, Dorset, in 1889) by Dr. Focke, with the remark, "Quite our German *macrophyllus*, but for the less hairy barren stem." In leaves however (though not in panicle) this abundant Hants. and Dorset plant seems to me to take no inconsiderable step away from typical *macrophyllus* towards *Schlechtendalii*, while Mr. Powell's plant, in both leaves and panicle, goes still further from the type in the same direction. I think it distinct from *amplificatus*.—W. M. R.

R. Danicus, Focke. Woods, Knock Drin, Co. Westmeath, July 31st, 1895.—H. C. Levinge. This was my suggestion when the plant was shown to me last autumn, and the name is probably correct, if (as I suppose) the fruiting sepals become erect or semi-erect. Continental specimens have larger leaves and a less contracted panicle.—W. M. R.

R. Radula, Weihe; and var. *anglicanus*, Rogers, Newnham Hill, Daventry, Northants, July, 1895. Both named by Mr. Rogers.—J. T. Powell.

R. oigoclados, Muell & Lefv., var. *Newbouldii* (Bab.). Crooked Wood, Co. Westmeath, Aug. 6th, 1895; "A less glandular form than usual"; teste W. M. R.—H. C. Levinge.

R. ——. Aghaderg Glebe, Loughbrickland, Co. Down, July 29th, 1895.—H. W. Lett. Identical with the Salop (Vales Wood and Grinshill) plant which we are calling *oigoclados*, Muell and Lefv. var. *Newbouldii*, (Bab.).—W. M. R.

R. Griffithianus, Rogers. Penhower Road, near Bangor, July, 1895.—J. E. Griffith.

R. pallidus, W. and N. Benthall Edge, Salop, Aug., 1895.—W. H. Painter. Yes, *R. pallidus*, W. and N., but a weak shade form with untypical narrow panicles.—W. M. R.

R. ——. Near High Beech Church, Epping Forest, S. Essex, Aug. 19th, 1895.—These approach specimens named *saxicolus* by Prof. Babington in 1890; see W. E. C. Report, 1889-90.—J. T. Powell. *R. foliosus*, W. and N. var. with exceptionally thick leaves and few strong stem prickles; or possibly a hybrid, *R. foliosus* × ?—W. M. R.

R. ——. Leppitt's Hill, Epping Forest, S. Essex, Aug. 19th, 1895. Identical with specimens named *saxicolus* by Prof. Babington in 1890. See W. E. C. Report, 1819-90.—J. T. Powell. Just *R. viridis*, Kalt., as Dr. Focke has in recent years taught us to distinguish it. In both *viridis* and *saxicolus*, when the fruit is ripe the sepals become patent or erect. It is evident from Dr. Focke's published descriptions that these two species are very similar; but the specimens (from several localities) which he has placed under *R. saxicolus* for me may be distinguished from *R. viridis* by stem yellowish-brown, polished and mostly subglabrous, though with some scattered hairs, leaflets obovate with short fruit, and panicle cylindrical with rounder top and much shorter lower branches.—W. M. R.

R. ——. Loughbrickland, Co. Down, July 30th, 1895.—H. W. Lett. I suppose allied to *R. saxicolus*, P. J. Muell, and to *R. hirtus*, W. and K.; but I can give no definite name.—W. M. R.

R. ——. Demesne, Saintfield, Co. Down, Aug., 1895; low bush on ground, not arching.—C. H. Waddell. Allied I think to *R. saxicolus*, P. J. Muell., though more strongly armed, and so diverging from it in the direction of *R. Marshalli*, Focke and Rogers.—W. M. R.

R. Balfourianus, Blox.. Near Ty Croes Station, Anglesey, Aug., 1895.—J. E. Griffith.

R. cæsius, L, var. *hispidus*, W. and N. King's Hatley, Cambs. Aug. 16th, 1894.—J. T. Powell. A form of *R. cæsius* of course, but I hesitate to place it under var. *hispidus*.—W. M. R.

Potentilla rupestris, L. Ben Lawers, Killin, July, 1895.—P. Ewing. A curious slip, the specimen is of course not *rupestris*, but *P. alpestris*.—A. B.

Rosa ——. Scout's Scar, Kendal, Westmorland, July, 1895.—C. H. Waddell. I suppose a form of *involuta*, but the armature is of course very slight for it. I cannot match it. W. M. R.

R. ———. Hedgebank, Tonaghnieve, Saintfield, Co. Down, Aug. 20th, 1895.—C. H. Waddell. *R. mollis*, Sm.—W. M. R.

R. ———. Hedge, Saintfield, Co. Down, June 20th, 1895; petals white, stems dark, glaucous bloom on young stems.—C. H. Waddell. Form of *R. tomentosa* approaching var. *subglobosa*, Sm.?—W. M. R.

R. ———. Heath, Aughnadarragh, Co. Down, Aug. 3rd, 1895; style—column hairy, protruded, persistent in old fruit.—C. H. Waddell. Clearly a form of *R. tomentosa*, I think, in spite of the *mollis*-like bloom on the stem.—W. M. R.

R. glauca, Vill.? Roadside, Saintfield, Co. Down, June and August, 1895.—C. H. Waddell. *R. tomentosa*, Sm.; might go under var. *scabriuscula*, though not quite typical for it.—W. M. R.

Mr. Rogers remarks generally on *R. mollis-tomentosa* forms:—"The more I see of the critical forms from the borderland of *R. mollis* and *R. tomentosa*, the more difficult it seems to me to be to name them at all reliably from dried pieces of one collecting only,—early *or* late. Studied in situ *in flower and fruit* they become comparatively easy in most cases. Failing that, a series of specimens of different dates with careful notes as to height and habit of bush, &c., is almost necessary for positive determination."

Callitriche stagnalis? On shingle, among seaweed just above tide-mark, Kames, Kyles of Bute, Aug., 1893.—H. T. Mennell. I believe correct.—A. B.

Caucalis Anthriscus, Huds. Roadside, Ferryhill, Co. Armagh, Sept. 26th, 1895. Not previously recorded from Co. Armagh.—H. W. and E. M. E. Lett.—*Anthriscus vulgaris*, Bernh.—W. R. L.

Rubia peregrina, L. Near Colwyn Bay, Denbighshire, July, 1895. New record.—W. H. Painter.

Gallium mollugo, L. Near Colwyn Bay, Denbighshire, July, 1895. Only one plant seen. New record.—W. H. Painter.

Solidago Virgaurea, L., form. Bettws-y-coed, July, 1895. Growing upon rocks.—W. H. Painter. Apparently a stunted state of the type.—W. R. L.

S. Virgaurea, var. *angustifolia*, Gaud. Woods, Tollymere Park, Co. Down, September, 1895.—C. H. Waddell. I should question this being the variety.—W. R. L.

Cnicus arvensis, var. *mitis*, Koch. Roadside, Aghadowey, Co. Antrim, Sept., 1895.—C. H. Waddell.

Centaurea Jacea, L. Sussex E., Hort. E. N. Bloomfield; root taken last year from meadow at Guestling, July 27th, 1895.—C. E. Salmon.

Crepis nicæensis, Balb. Meadow land, Malvern Link, Worcestershire, June, 1895, Comm. R. F. Towndrow.—C. Waterfall. On two of the sheets one piece was *C. taraxacifolia*, Thuill., the rest were right.—W. R. L. Such specimens are not worth the time of determining.—A. B.

Hieracium gracilentum, Backh. Loch-na-gar, Aberdeen, July, 1895.—P. Ewing. One specimen so named which I have retained, is good *eximium*.—W. R. L.

H. ———. Allt Bhaic, Blair Atholl, Perthshire, July, 1894. —A. B. Hall. *H. anglicum*.—E. F. Linton.

H. ———. Pass of Killiecrankie, Perthshire, alt. 500 ft., July, 1894.—A. B. Hall. *H. anglicum*, var. *longebracteatum*, F. J. Hanb.—F. J. Hanbury. This was one sheet in the cover of *murorum* forms.

H. vulgatum, Fr., a form ? Nant Francon, Bangor, July, 1894. —J. E. Griffith. *H. clovense*, Linton, var. *Griffithii*, F. J. Hanb. —F. J. Hanbury.

H. ———. On the Bridge, Langdon Beck, Teesdale, Yorks., Aug., 1894.—A. B. Hall. *H. Schmidtii*, Tausch. form.—F. J. Hanbury.

H. ———. Coniston Old Man ; upper slate quarries over 200 ft., styles bright yellow, Aug., 1891. H. T. Mennell. *H. argenteum*, Fr.—F. J. Hanbury.

H. ———. Allt Bhaic, Blair Atholl, Perthshire, alt. 1000 ft., July, 1894.—A. B. Hall. Appears to me a form of *H. scoticum*, but the specimen is too mouldy to make a very satisfactory examination.—F. J. Hanbury.

H. ———. Pass of Killiecrankie, Perthshire, alt. 500 ft., July, 1894.—A. B. Hall. *H. murorum*, var. *ciliatum*, Almq ?— E. F. Linton. Seems to me a form of this variety.—F. J. Hanbury.

H. ———. Above the Falls of Bruar, Blair Atholl, Perthshire, alt. about 800 ft., July, 1894.—A. B. Hall. *H. murorum*, var.—E. F. Linton and F. J. Hanbury.

H. ———. Falls of Garry, Struan, Perthshire, 700 ft., and near Dalnaspidal, N. Perthshire, about 1300 ft., July, 1894.— A. B. Hall. On these *murorum* forms Mr. Hanbury made no remark.

H. vulgatum, Fr. Nant-y-glo, Colwyn, Denbighshire, July, 1895. New record.—W. H. Painter. *H. vulgatum* form.—F. J. Hanbury

H. vulgatum, Fr., a form? Near Llanberis, Aug., 1894.—J. E. Griffith. Mr. Hanbury makes no remark on this. It does not seem to differ from the typical subalpine form of *H. vulgatum*.—W. R. L.

H. vulgatum, Fr., a form? Near Ogwen Lake, July, 1894.—J. E. Griffith. One specimen which I have retained is the type lowland form of *H. vulgatum*, the rest are different, but I cannot say whether they are a named variety or not. Mr. Hanbury remarks on them:—"I think a stunted form of *H. vulgatum*; the shape and clothing of the phyllaries and involucres does not allow of their being placed under var. *dædalolepium*, Dahlst., or var. *amphibolum*, Lindeb."—W. R. L.

H. (*vulgatum* form). Coniston Old Man, styles yellow, leaves blotched. No. 3.—H. T. Mennell. A mixed parcel; two sheets [very poor specimens which are retained] are *H. angustatum*, Lindeb., the others *H. vulgatum* Fr.—F. J. Hanbury.

H. rigidum, Hartm. var. *scabrescens*, Johanss. Garn Dolbenman, Aug., 1890.—J. E. Griffith. Probably correct, but the specimens are badly dried and mouldy rendering examination almost impossible.—F. T. Hanbury.

H. ———. Shores of Lake Coniston, near the village, style yellow with dark hairs, August, 1891. A very leafy corymbose form, much branched, possibly due to some injury at an early stage, but there were a large number of similar plants. No. 1.—H. T. Mennell. *H. corymbosum* Fr. var. *salicifolium* (Lindeb)—F. J. Hanbury.

H.———, No. 2. Lake shore, Waterhead, Coniston, a bright clear green plant, nearly glabrous above; styles bright orange, stigmas with fuscous hairs; the loose reflexed phyllaries a marked character.—H. T. Mennell. *H. boreale*, Fr.—F. J. Hanbury.

H. ———, No. 8. Brantwood, Coniston; plant pale green, style dark dusky, involucre dark green, nearly glabrous, with a few white hairs.—H. T. Mennell. *H. boreale*, Fr., shade form. —F. J. Hanbury.

H. auratum, No. 6. Coniston Lake shore, Aug., 1891; styles yellow, soon turning darker with exposure.—H. T. Mennell. *H. boreale*, Fr.—F. J. Hanbury.

H. ———, No. 7. Lake shore, Coniston. Styles dark.— H. T. Mennell. *H. boreale*, Fr. var.—F. J. Hanbury.

H. ———. Near Portmadoc, Aug., 1894.—J. E. Griffith. *H. boreale*, Fr.—F. J. Hanbury.

H, ———. Great Orme's Head, Aug., 1893.—J. E. Griffith. *H. boreale*, Fr. f.—F. J. Hanbury.

Lysimachia ———. Edge of Bay, behind Ferry Hotel, Lake Windermere, Lancs., Aug., 1895. Growing in the water and forming a compact mass for three or four yards from the shore into the lake. The plant is stoloniferous, about three feet high, with flowers a bright yellow striped with orange.—C. Waterfall. I have at present no means of naming this alien.—A. B.

Scrophularia aquatica, L. var. *cinerea*, Dum. "Gravel Walk," Donore, shore of L. Derevaragh, Co. Westmeath, July 24th, 1895.—H. C. Levinge. The variety appears to be the form most usually met with.—W. R. L.

Rhinanthus Crista-Galli, L., var. *fallax*, Wimm & Grab. Bog of Lynn near Mullingar, July 22nd, 1895, leg. E. S. Marshall; new to District VII, Cybele Hibernica.—H. C. Levinge.

Mentha ———. Near Stroud, Gloucestershire, Aug., 1895; leg. S. J. Coley.—H. P. Reader. *M. silvestris*, L.—A. B. "Très remarquable! an hybrida ad *rotundifolia* accedens vel potius. *M. rotundifolia* var. *oblongifolia* herbier Lejeune—herb. Lej. *a*, saltem prouima. Il faudrait voir la plante en fruit. Forme inter-essante á rechercher." E. Malinvaud in lit. ad. E. F. Linton.

M. ———. Deer Park, Glenarm, Co. Antrim, August 13th, 1895.—H. W. Lett. *M. hirsuta*, L.—A. B.

M. ———. Damp spot at roadside, Loughadian, P. of Adhaderg, Co. Down, Aug. 24th, 1895.—H. W. Lett. *M. arvensis*, L. var. *Nummularia*, apparently, but too immature to be sure.—A. B.

Ballota nigra, var. *ruderalis*, Koch ? Roadside, near seacoast, Cloughey Bay, Co Down, 1894.—C. H. Waddell. Not *ruderalis* true, but evidently a form connecting the two varieties, but under *foetida ;* in *ruderalis* the calyx teeth are gradually acuminated into long spinous teeth ; in Mr. Waddell's plant the teeth are more of a mucro, although they are longer than usual, and I believe it to be the *S. urticifolia*, Maly. En. Pl. Aust. 181, 1848 = *B. urticifolia*, Ortmann, Fl. Carlsb.—A. B.

Ajuga pyramidalis, L. Ballyryan, Co. Clare, May 15th, 1895; leg. P. B. O'Kelly.—H. C. Levinge.

Chenopodium opulifolium, Schrad. By canal, Willesden, Middlesex, Aug., 1895.—H. P. Reader.

C. hybridum, L. Beckford, Gloucestershire, August, 1895.—H. P. Reader.

Salix fragilis, L., var. *decipiens*, Hoffm. ? Banks of Codbeck, N. of Thirsk, Yorks., April and August, 1894.—A. B. Hall. I quite think this is *S fragilis* × *triandra*, *i.e. S. decipiens*, Hoffm. —W. R. L. *S. decipiens*, Hoffm.—E. F. Linton.

S. triandra viminalis (*S. hippophaefolia*, Thuill.) R. Wye, near Ross, Herefordshire, 28th April 1892. Legit A. Ley. I have not been able to get foliage to go with these specimens ; but they are the right plant, viz. : *S. hippophaefolia*, Thuill , which is undoubtedly *S. triandra* × *viminalis*. This hybrid (or form of the hybrid) seems to keep quite distinct from any form I have seen of *S. undulata*, Ehrh. I have come across no connecting links such as should occur, if *S. undulata* were also a form of the same hybrid ; which I am convinced that it is not. —E. F. Linton.

S. ———. Burbage Wood, Leicestershire, May and August, 1895.—H. P. Reader. A form of *S. aurita* × *cinerea (S. lutescens*, Kern.*)*—W. R. L.

S. purpurea, L., var. *Lambertiana,* Sm. Banks of Codbeck, Thirsk, Yorks., April and August, 1894.—A. B. Hall. *S. purpurea,* L., not var. *Lambertiana.*—E. F. Linton.

S. rubra, Huds., var. *Forbyana* (Sm.)? Banks of the Codbeck, Norby, Thirsk, April and August, 1894.—A. B. Hall. The flower is *S. viminalis,* the foliage *S. rubra.*—W. R. L.

S. rubra, var. Banks of Codbeck, below World's-end, Thirsk, April and Aug., 1894.—A. B. Hall. This I should call *S. Forbyana,* Sm., or at all events *S. purpureoides,* Gren.—W. R. L. *S. rubra,* Huds., var. *Forbyana,* (Sm.).—E. F. Linton.

S. rubra? Thirsk, 1894.—A. B. Hall. *S. purpurea,* L. var. *Woolgariana* (Borr.).—E. F. Linton.

S. Forbyana, Sm. Banks of Codbeck, near Spa, Thirsk, April and Aug., 1894.—A. B. Hall. I think a form of this.—W. R. L.

Juncus tenuis, Willd. Bridge of Weir, Renfrewshire, August, 1894.—P. Ewing.

Sparganium affine, Schnizl. Loughrigg Fell, and Codale Tarn, Westmorland, July and Sept., 1895.—C. Waterfall.

Potamogeton crassifolius, mihi var. = *P. Zizii* × *natans.* *P. petiolatus,* Wolfgang? Horselode Fen Drain, Chatteris, Cambs., Sept. 25th, 1892; leg. A. Fryer.—A. Bennett.

P. falcatus, Fryer. Stocking Fen, Ramsey, Hunts., July 23rd, 1887; leg. A. Fryer.—A. Bennett.

P. varians, Morong. *P. spathœformis,* Tuck. *P. gramineus,* v. *spathulæformis,* v. (?) Robbins. Witcham Meadlands, Mepal, Cambs., October 7th, 1894; leg. A. Fryer.—A. Bennett.

P. Friesii, Rupr. Lord Longford's Boat harbour, L. Deravagh, Co. Westmeath, July 24th, 1895. New to District VII.; Cybele Hibernica.—H. C. Levinge. A rather smaller form than the typical plant of Ruprecht.—A. Bennett.

Carex aquatilis, Wahl. Canlochan, Forfarshire, July, 1892.—P. Ewing. The varietal names of this species seem to be crossed in our text books; perhaps the best arrangement of our Scottish forms was one proposed by Mr. McLaren in a paper read before the Botanical Society of Edinburgh, and published in the *Botanical Gazette*, 1881, p 17. He there proposes three forms, *α*. *β*. and *γ*. Of these Mr. Ewing's plant represents ; he gives no names however to his varieties. In Sweden the species often occurs between 5 and 6 feet high. Our alpine form does not seem to agree with those of Laestadius or Nylander, and may perhaps bear the name of v *minor*, Boott., though I have not compared the specimens with Boott's herbarium at Kew.—A. B.

C. ———. Marsh, Hillsborough, Co. Down, July, 1894.—C. H. Waddell. No doubt an abnormal form of *C. ampullacea*. Good. The development seems from some cause to have been arrested.—A. B.

Sesleria cœrulea, Ard. var. *luteo-alba*, Opiz. Burren, Co. Clare, May, 1895; leg. P. B. O'Kelly. Vide remarks in Report for 1894-5. The specimens now sent are from the extensive Barony of Burren, Co. Clare, the greater portion of which is very rocky (Upper Limestone formation). Throughout this tract of country one of the most frequent grasses is *Sesleria cœrulea*, and scattered through it here and there the variety *luteo-alba* is not altogether uncommon.—H. C. Levinge.

Poa stricta, Lindb. Lochnagar, Aberdeen, July, 1894.—P. Ewing. These specimens seemed to me merely *P. alpina*, L., v. *vivipara*, but to make sure I sent one of them to Prof. Hackel. In his reply he says "The *P. stricta* from Lochnagar is only *P. alpina* v. *vivipara* in a dwarf state. *P. alpina* is in all its forms characterised by the leaf-sheaths accumulated at the base of the stem, which seems swollen by them. *P. stricta*, Lindb., has no thickened base of the stem, because its sheaths are remote like those of *P. laxa*, of which *P. stricta* is perhaps only a viviparous variety." The only specimen that I have seen from Scotland that might be *P stricta*, is one I possess from Lochnagar, gathered on Aug. 7th, 1831, by Mr. W. Brand, and sent to me by Mr. F. M. Webb, when he was curator of the Edinburgh Herbarium. This has the base of the stem naked, the base of the leaves tapered (not abruptly square as in *alpina*), but it is difficult to see the exact character of the viviparous flowers.

Andersson in his Gramineæ Scandinaviæ, p. 45, remarks under *P. laxa,* Haenke, "P. alpina cui certissime proxima differt; culmis basi nudis, &c." Of *P. laxa* from Lochnagar I possess only two specimens; one of these is certainly simply *P alpina vivipara*; the other was also sent me by Mr. Webb labelled, "*P. laxa,* Haenke, *P. minor,* Bab. (non Gaud.) *This* specimen has been so named in Dr. Boswell's ms. Lochnagar. Collected apparently by Prof. Balfour in 1846 and called by him *P. Balfourii.*" This is not viviparous, and may be true *laxa,* it corresponds fairly with a specimen from the Dovre, Norway, gathered by N. A. Johnsson and sent to Mr. Nicholson of Kew (from whom I had it) by Dr. Winslow of Goteborg. The only other Norwegian specimen I possess (gathered by Prof. Zetterstedt) looks to me much more like a *P. glauca* form, its base is not naked, but thickened by the sheaths, still it is not *alpina.* I should be glad to get more specimens from Lochnagar to submit to Prof. Hackel, as it is very awkward to have two supposed plants on our lists that may not be what they are named. If anyone will do this, I propose to send the only two I have that may be correct.—A. B.

Festuca ———. Dry banks, Hinckley, Leicestershire, July, 1895.—H. P. Reader. This I suppose is what Dr. Boswell would have named *F. duriuscula* "Linn." Sm. of the 3rd Ed. of English Botany. Babington considers that Smith's plant was *rubra* "in part," and I suppose *ovina* in part, as he has " *durinscula,* L.," under his *F. ovina.* These specimens clearly have nothing to do with *ovina,* L., still I am in doubt what Prof. Hackel would name them. When the opportunity occurs I hope to let him see this.—A. B.

Agropyron pungens, Roem & Schult? Gravelly field by seashore, Coney Island, Killough, Co. Down, Sept. 14th, 1894. —C. H. Waddell. I should say not *pungens,* but a maritime state of *repens.*—W. R. L.

A. junceum, Beauv. Colwyn Bay, Denbighshire, July, 1895. New Record.—W. H. Painter.

——— ———. A casual on waste ground near distillery, Belfast, 1895; H. Hanna.—C. H. Waddell. An American grass "*Bromus unioloides*, Kunth (*B. Schraderi*, Kunth, *Ceratochloa patula*, Schrad.)—Hackel's 'The True Grasses,' p. 169.—W. R. L.

Lastræa Filix-mas, Presl., var. *affinis*, Bab. Knock Drin, Co. Westmeath, July 22, 1895; leg. E. F. Linton.—H. C. Levinge.

L. Filix-mas, Prest., var. *paleacea*, Moore. Woods, Knock Drin, Co. Westmeath, Sept. 8th, 1895.—H. C. Levinge.

Equisetum palustre, var. *polystachyon*. Goathland, Whitby, July, 1895.—H. T. Mennell.

Chara fragilis, Desv., var. *Hedwigii*, Kuetz. Pond near East Grinstead, Sussex, Aug. 24th, 1895.—C. E. Salmon.

C. contraria, Kuetz. Connivent form, L. Owel, Co. Westmeath, July 20th, 1895. The same, large lax form, Brittas Lake, Knock Drin, Co. Westmeath, Sept. 4th, 1895.—H. C. Levinge.

C. vulgaris, L., var. *longibracteata*, Kuetz. Ditch near Camber Castle, Sussex, June 27th, 1895.—C. E. Salmon.

C. vulgaris, L., var. *papillata*, Wallr. Near Pevensey Sluice, Sussex, July 15th, 1894; fide H. and J. Groves.—E. S. Salmon.

TREASURER'S BALANCE SHEET, 1895.

	£	s.	d.		£	s.	d.
Balance from 1894	5	2	11½	Printing—			
Subscriptions, 1895	6	5	0	W. Sessions, 11th Report, &c.	3	11	10½
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THE

THIRTEENTH ANNUAL REPORT

OF THE

WATSON

Botanical Exchange Club,

1896-97.

Referees :—

J. G. BAKER, F.R.S., F.L.S., Royal Gardens, Kew.
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YORK:
WILLIAM SESSIONS, PRINTER, 30, CONEY STREET,
1898.

WATSON

BOTANICAL EXCHANGE CLUB.

Report for 1896-97.

THE plants sent in this year numbered 1342, from 18 members, as against 1224 from the same number in 1895.

The Rev. W. Moyle Rogers reported on the *Rubi* sent him : "The material is mostly well selected, well pressed, and free from mixture, which is very gratifying to a referee."

Although it is pleasant to be able to quote the above, yet, on the other hand, it must be mentioned that some members still send in *single* specimens,—even, sometimes, of species not on the list of desiderata; this cannot help the work of an Exchange Club.

It is much to be regretted that the publication of this Report has been so long hindered. The delay was due to the fact that a few plants (distributed with Reference numbers, see below) sent to continental specialists have not been returned yet. It seems best not to wait any longer for these, but to publish the determinations in a supplement in next year's Report.

The best thanks of the Club are due to Rev. Moyle Rogers, for reporting on the *Rubi*; and to Mr. Arthur Bennett, for examining all critical plants.

The following are the names of contributors, with the number of plants respectively sent :—

Mr. A. J. Crosfield...	23
Mrs. Cotton	24
Mr. H. D. Geldart ...	32
Mrs. Gregory ...	31
Mr. J. E. Griffith	8
Miss D. M. Higgins	40
Mr. A. B. Jackson ...	38
Rev. H. W. Lett	80
Rev. E. F. Linton ..	74
Mr. H. T. Mennell...	12
Rev H. P. Reader...	33
Mr. E. S. Salmon ..	465
Mr. C. E Salmon ...	98
Mr. A. Somerville ...	92
Mr. R. S. Standen .	33
Mr. H. S. Thompson	49
Rev. C. H. Waddell	103
Mr. C. Waterfall ..	107
	1342

E. S. and C. E. SALMON, Distributors
for the year 1896—97.

Ranunculus fluitans, Lam. var. *Bachii* (Wirtg.), In the Mole, Leatherhead, Surrey, June, 1896.—E. S. Salmon. The name was confirmed by Messrs. H. and J. Groves. As far as we know, this plant is not recorded in any Flora of Surrey.—E. S. and C. E. Salmon.

R. heterophyllus, Web. ex.p., form., Dunwich, Suffolk E., June, 1896.—E. S. Salmon. New record for vice-county.—E. S. and C. E. S.

R. tripartitus, D.C., var. *intermedius* (Knaf.), Holmwood Common, Surrey, April 27, 1896.—C. E. Salmon. New station for the plant in the county.—E. C. and C. E. S.

Papaver dubium Linn., Southwold, Suffolk E, June, 1896.—E. S. Salmon, "var. *Lecoqii* (Lamotte)."—A. B. Additional station to those given in the Flora of Suffolk.—E. S. and C E. S.

Fumaria densiflora D. C. Waste ground, by the Newbury Union, near Newtown, Berks. V. C. 22, September 18, 1896.—A. B. Jackson.

Arabis stricta, Huds., near Bristol, Gloster, May, 1889.—H. S. Thompson.

A perfoliata Lam., Postwick, E. Norfolk, June 20, 1896.—H. D. Geldart.

Alyssum calycinum, Linn., Hayfield, near Southwold, E. Suffolk, June, 1896.—E. S. Salmon Additional locality to that given in the Flora of Suffolk.—E. S. and C. E. S.

Polygala amara, Linn., var. *alpina* Reichb. fil, Cronkley Fell, Teesdale, Yorkshire, June, 1896.—H. T. Mennell. This shows the plant is still existent in the station given.

Silene conica, Tuddenham, Suffolk, June, 1891.—Coll. H. Goss. Comm. R. S. Standen. Mixed with the specs. on one sheet was one piece of *S. otites* Wibel.—E. S. and C. E. S

Silene nutans, v. *paradoxa*, Dover Cliffs, June, 1896.—A. B. Rankin. Ex. herb.—D. M. Higgins. Smith's var. *paradoxa* is hardly ever used now.—A. B.

Silene dichotoma Ehrh. Avon Tyrrell, S. Hants, September 11, 1896.—E. F. Linton.

Lychnis alpina, Linn., Summit of Little Culrannoch, Clova, Forfar, V.C. 90, July 31, 1896.—A. Somerville.

Cerastium pumilum Curt., Clifton Down, Glos., May, 1889.—H. S. Thompson. I should call this *C. tetrandrum* Curtis.—A. B.

Arenaria uliginosa Schleich, Widdy Bank, Teesdale, Durham, June, 1896.—H. T. Mennell. This shows the plant is still existent in its original station.—E. S. and C. E. S.

Sagina apetala, *b. prostrata* Bab., Colwall, Herefordshire, July, 1896.—A. J. Crosfield. The authority should be Gibson, in 'Phytologist,' p. 178, April, 1842. Babington's name dates from 1843, 1st edition of Manual, where he refers it to Gibson. —A. B.

Hypericum elodes, Mountain, E. of Lough Cam, Co. Armagh, July 15, 1896. New record for Co. Armagh and District 10.—H. W. Lett.

Impatiens biflora Wall, Wash Water, near Enborne, Berks., September 5, 1896.—A. B. Jackson. See Journ. Bot., 1896, p. 434.—E. S. and C. E. S.

Lotus crassifolius, Pers. Among the fixed stones at Sand Bay, Weston-s.-Mare, May, 1896.—E S. Gregory. I should *not* so name it.—A. B.

Oxytropis campestris, D.C., Clova, June, 1896.—A. H. Evans. Ex herb., H. P. Reader.

Rubus plicatus, W. and N., Standing Stone-hill, parish of Anacloan, Co. Down (Ref. No. 5), 28th June, 1896.—H. W. Lett. "Yes ; the first Co. Down specimens that I have seen." W. Moyle Rogers.

R. hemistemon, P. J. Muell, Peperharow, Surrey, 16th August, 1892.—E. F. Linton. "I believe just the Surrey plant that Dr. Focke has thus named for us."—W. M. R.

R. Rogersii, Linton. (1) Peat moor, Aughnadarragh, near Saintfield, Co. Down, 1st September, 1894.—C. H. Waddell. (2) Marshy open wood, Gillhall, near Dromore, Co. Down, June 1896.—C. H. Waddell. (3) Same locality as (2), 20th July, 1896.—H. W. Lett. (4) Kinlochewe, Ross, W. ("Ref. No. 6"), August, 1896.—E. S. Salmon. "*R. Rogersii*, all ; (1) and (4) typical, (2) and (3) less so. Nos. (3) and (4) were sent unnamed. No. (4) is the first W. Ross specimen that I have seen. See Journ. Bot., 1897, 43, 44."—W. M. R.

R Lindleianus, Lees. (1) Reigate Heath, Surrey (Ref. No. 11), 18th and 23rd July, 1896. (2) Smithwood Common, Surrey (Ref. No. 2), 28th July, 1896.—E. S. Salmon. (3) Mill hill Lane, Ballintaggart, Aghaderg, Co. Down, 29th June, 1896.—H. W. Lett. "Strong and somewhat glandular examples of this species. Mr. Lett's plant is an unusual form, with roundish broad-based terminal leaflet. Mr. Salmon's specimens (sent unnamed) are much more typical."—W. M. R.

R. ————, Drumsallagh, Aghaderg, Co. Down (Ref. No. 8), 1st July, 1896.—H. W. Lett. "A very large-flowered form or var. of the aggregate *R. rhamnifolius* W. and N. Mr. Lett's plant from Cleigh, Anacloan (Ref. No. 6), may be a weak form of the same ; but it is hardly possible to give a positive determination from the few dried pieces sent."—W. M. R.

R. ————, Reigate Heath, Surrey (Ref. Nos. 12 and 9), 22nd and 18th July, 1896.—E. S. Salmon. "*R. pulcherrimus*, Neum. ; a very strong form."—W. M. R.

R. ——————, Kinlochewe, W. Ross, 12th August, 1896.—C. E. Salmon. "*R. villicaulis*, Koehl. Just the plant which I saw growing so abundantly in Scotland last summer, with reference to which Dr. Focke wrote to me, 'the true typical *R. villicaulis*, first described from Silesia, E. Germany.' See Journ. Bot., 1897, 45. The first W. Ross specimens that I have seen."—W. M. R.

R villicaulis, Aghaderg Glebe, Co. Down (Ref. No. 14), 7th July, 1896.—H. W. Lett. "*R. villicaulis Koehl. var. Selmeri* (Lindeb); as are also the following (sent unnamed)—(1) Between Scarvagh and Tanderagee, Co. Armagh (Ref. No. 21), 19th July, 1896.—H. W. Lett. (2) Kinlochewe, W. Ross (Ref. No. 5), August, 1896.—E. S. Salmon. (3) By Allt Chnaimhean, Kinlochewe, W. Ross, 12th August, 1896.—C. E. Salmon."—W.M.R.

"*R. gratus*," Cleigh, Anacloan, Co. Down (No. 7, 1896), 1st July, 1896.—H. W. Lett. "Luxuriant large flowered *R. Selmeri* (Lindeb)."—W. M. R.

R. ——. Reigate Heath, Surrey (Ref. No. 13), July, 1896.—E. S. Salmon. "*R. villicaulis* Koehl. *var. calvatus*, Blox. See Journ. Bot. 1894, 44."—W. M. R.

R. rhombifolius, Weihe, Peperharow, Surrey, 15th August, 1893.—Collected by R. P. Murray, communicated by E. F. Linton. "Evidently a somewhat depauperated form or state of *R. rhombifolius*."—W. M. R.

R. rusticanus, Merc, Reigate, Surrey (Ref. No. 7), 18th July, 1896, and (Ref. No. 8), July, 1896.—E. S. Salmon. "Both remarkable forms of *R. rusticanus*; no. 8 recalling, but only in the *shape* of the leaflets and in the long, straight prickles, my *angustifolius* var. of *R. leucostachys* Schleich."—W. M. R.

R. lentiginosus, Lees. = *R. cambricus*, Flora of Anglesey and Carnarvon. Near Bangor, Carnarvon, July, 1896.—J. E. Griffith. "Yes; see Journ. Bot., 1896, 291."—W. M. R.

"*R. pyramidalis*," Kinlochewe, W. Ross (Ref. No 4), August, 1896.—E. S. Salmon. "Yes, good luxuriant *R. pyramidalis*, Kalt."—W. M. R.

R. ——, Walton Heath, near Reigate, Surrey, 1st August, 1896.—C. E. Salmon. "*R. leucostachys*, Schleich."—W. M. R.

R. ——, Kinlochewe, W. Ross (Ref. No. 3), August, 1896.—E. S. Salmon. "*R. mucronatus*, Blox."—W. M. R.

R. ——, Margery, Reigate Hill, Surrey, 11th July, 1896.—C. E. Salmon. "*R. Gelertii*, Frider., or form very near it. I know too little of *R. Gelertii* to give a positive determination here; but I can see no difference between Friderichsen's specimens of that species in my herbarium and this plant of Mr. Salmon's, beyond the greener leaves and broader terminal leaflet of the latter. So far as can be judged from dried specimens only, there seems nothing to keep them apart specifically. Soon after the preceding lines were written, I had an opportunity of showing this plant to Mr. Gelert, and he assented to my naming, saying "This is the only *R. Gelertii* that I have seen from England."—W. M. R.

R. ——, (1) Reigate Heath, Surrey (Ref. No. 1), 30th July, 1896.—E. S. Salmon. (2) Same locality, 18th July, 1896.—C. E. Salmon. "Both *R. infestus*, Weihe. No. 1, a very strongly armed form."—W. M. R.

R. ——, Near Smithwood Common, Surrey (Ref. No. 14), 27th July, 1896.—E. S. Salmon. "I can give no certain name for this form. In some respects it recalls *R. hystrix* W. and N. and *R. adornatus*, P. J. Muell, while in other particulars it seems nearer to *R. infestus*. Perhaps only a strictly local form."—W. M. R.

R. ——, Cranleigh, Surrey (Ref. No. 15), 27th July, 1896.—E. S. Salmon. "Here, unfortunately, there is some mixture of material. One large stem piece seems to belong to *R. infestus*, Weihe, and the rest chiefly to a form of *R. rosaceus* W. and N., allied to vars. *hystrix* and *Purchasianus*."—W. M. R.

R. Drejeri, G. Jensen var. *hibernicus*, Rogers (Journ. Bot., 1897, 48). Thicket in shade, Saintfield, Co. Down, 8th Sept., 1894.—C. H. Waddell. "Here also, unfortunately, there is mixture of material, two of the panicles (and apparently some of the leaves) belonging to *R. Selmeri* (Lindeb), while the bulk of the specimens are undoubtedly my *hibernicus*."—W. M. R. (The *R. Selmeri* was returned to Rev. C. H. Waddell. E. S. and C. E. S.)

R ——, Shrubbery, partly under tall trees, Aghaderg Glebe, Co. Down (No. 1, 1896), 30th June, 1896.—H. W. Lett. "*R. Drejeri*, G. Jensen, var. *hibernicus* Rogers."—W. M. R.

R ——, Aghaderg Glebe, Co. Down, in fence under trees (No. 15, 1896), 7th July, 1896.—H. W. Lett. "Apparently also my var. *hibernicus* of *R. Drejeri*; a stout form with broader less glandular panicle. Distinct from this, and yet in some respects strongly recalling it, seem Mr. Lett's (No. 16, 1896), and (No. 20, 1896), both collected on the 16th of July, and at the same place. Of these (No. 16) seems furthest away from *R. hibernicus*, and is so different in stem and leaves, that it would hardly occur to anyone (with dried specimens only before him), to connect them, were it not that (Nos. 15) and (20) look like connecting links between (No. 16) and (No. 1). Very careful study of the living bushes in the district seems necessary here. In Great Britain I can recall no plant that I could closely associate with any in this series."—W. M. R.

R ——, Aghaderg Glebe, Co. Down (No. 17, 1896), 16th July, 1896.—H. W. Lett. "A form of *R. Drejeri*, G. Jensen, intermediate between the typical plant and my var. *Leyanus*, such as I have seen in S. Devon and Wales (see Journ. Bot. 1897, 48.")—W. M. R.

"*R. ? radula*," Aghaderg Glebe, Co. Down (No. 13, 1896), 7th July, 1896; and (2) "*R. gratus*," Drumnahar, Aghaderg, Co. Down (No. 11, 1896), 30th June, 1896.—H. W. Lett. "Two slightly varying forms of my var. *echinatoides* of *R. radula*, Weihe, in stem armature differing less from typical *radula* than is usual in this variety. Mr. Lett speaks of the sepals as "patent in fruit," but I think he will find that though they rise somewhat after the fall of the petals, they quickly become reflexed, and remain so when the fruit is ripe."—W. M. R.

R. ——, Gillhall Demesne, Co. Down (No. 23, 1896), 20th July, 1896.—H. W. Lett. "I think *R. regillus* A. Ley, Journ. Bot., 1896, 217. In Mr. Ley's plant the leaves are more frequently 3-nate and the stalked glands on panicle-rachis are less sunk in the long hair; but I see no other differences in the dried specimens. Further research, however, is of course very desirable with a view to certain determination."—W. M. R.

R. oigoclados Muell and Lefv. var. *Newbouldii*, (Bab.), Aghaderg Glebe, Co. Down (No. 3, 1896), 30th June, 1896.—H. W. Lett. "I think rightly named; but I have to own to great difficulties in fixing the limits of *R. Newbouldii*. Another *distinct packet* of Mr. Lett's, with *identical labels*, contains what certainly seems a different though allied plant; and this I am disposed to call *R. macrostachys* (P. J. Muell), which I have not before seen from Co. Down. I have added 'B' to its labels and 'A' to the *R. Newbouldii*."—W. M. R.

R. ——. Bricklan, Parish of Aghaderg, Co. Down (No. 10, 1896), 30th June, 1896.—H. W. Lett. "I think not distinct from the plant last referred to, i.e., *R. macrostachys*."—W. M. R.

R. ——. Whinny Hill, Aghaderg Glebe, Co. Down (No. 9, 1896), 30th June, 1896,—H. W. Lett, "*R. Koehleri* W. and N. var. *cognatus* (N. E. Brown)." W. M. R.

R. ——. Reigate, Surrey (Ref. No. 10), 23rd July, 1896.—E. S. Salmon. "Mr. Salmon suggests '*R.? corylifolius*, *b. conjungens*,' and it undoubtedly shows considerable resemblance to that plant; but I think it more probably *R. corylifolius × rusticanus*. It seems all but wholly barren."—W. M. R.

R. ——. Gillhall Demesne, Co. Down (No. 24, 1896), 20th July, 1896.—H. W. Lett. "Almost certainly a hybrid, *R.? leucostachys × ?*"—W. M. R.

Other Rubi, collected in Co. Down by the Rev. H. W. Lett, to which at present no definite name can be assigned, are the following:—

(1) *R.* ——. Edenderry, Aghaderg (No. 12, 1896), 6th July, 1896. "Unknown to me. The great length of stalk in the terminal leaflet suggests affinity with *R. rhamnifolius*

sp. collect; but beyond that I cannot get. Mr. Lett suggests 'This panicle has a look of *R. Lindebergii.*' Even in panicle however the resemblance can hardly be called close, while the stem and leaves of this plant are obviously very different from those of *R. Lindebergii.* I showed Mr. Gelert this and suggested that it seemed very near to the true *R. cordifolius* W. and N., and on our comparing it with the figure of that species in Rubi Germanici we were agreed that the resemblance is close. Dr. Focke's opinion on this plant is very desirable."—W. M. R.

(2) *R.* ——. Whinny Hill, Aghaderg Glebe (no Ref. No. given), 30th June, 1896. "Very like *R. Borœanus* Genev, and perhaps not distinct from it, though it differs from the typical plant (which seems very constant) in its sulcate stem and its less rigid panicle with 'pure white' petals and stamens longer than styles. Its flowers also seem larger and its leaves less often felted beneath, while its terminal leaflet is more frequently cordate. *R. Borœanus* would, I believe, be a new record for Ireland."—W. M. R. "I have seen French *Borœanus* like this"—O. Gelert.

(3) *R.* ——. Mill Hill Lane, Ballintaggart ("A"), 29th June, 1896. "Rather like *R. melanoxylon*, Muell and Wirtg. See Journ. Bot., 1897, 47."—W.M.R.

(4) Aghaderg Glebe (No. 19, 1896), 16th July, 1896. "A very curious plant, with Koehlerian panicle and stem nearly (? or quite) eglandular, though covered with very unequal scattered prickles and acicles. But for this very mixed armature very like (No. 16) (same locality and same date). It also somewhat resembles a Kent plant which Dr. Focke in December, 1893, named '*R. insolatus* autor, non P. J. Muell, non Genev," and added 'I think the forms of *R. insolatus* will prove to be a *status horridus* of various glandular Rubi."—W.M.R.

(5) "*R. micans*," Mill Hill Lane, Ballintaggart, Aghaderg, 29th June, 1896. "There is no *R. micans* within this cover, but two dissimilar panicles, and leaves which may belong to either of them. The more spreading panicle again recalls Mr. Lett's No. 16.—W.M.R.

R. —— ? Magheralin, shrubbery, trailing over bushes, Co. Down, 20th, 1896.—C. H. Waddell. "This seems rather near the German *R. chlorothyrsos*, Focke; but that has a much more glandular panicle, though a far less prickly and aciculate stem. Mr. Waddell's plant also makes some approach towards *R. Questierii*, Lefv. and Muell. On this Mr. Gelert said, 'I think also nearest to *R. chlorothyrsos* Focke,' adding that he had seen that species in Germany with panicles no more glandular than in this Irish plant, but never with such mixed armature on the stem."—W. M. R.

As will be seen from the foregoing notes on Co. Down Rubi collected in 1896, compared with the Rev. E. S. Marshall's papers in Journal Bot., 1896, 252 and 497. and my description of "two new brambles from Ireland," pp. 504 to 506 of the same vol.; it is becoming increasingly evident that Ireland has several (probably many) *Rubi* not known in the sister isle of Great Britain, in addition to a great many species and varieties common to both. Which of these specially Irish brambles may be endemic remains to be seen. It has been suggested that some of them may occur in the Spanish Peninsula. For the present Messrs. Lett and Waddell, and other Irish botanists will, I venture to suggest, be doing us the greatest service by carefully observing and collecting all the best marked and most constant forms occuring in their neighbourhoods and making note of their *range of distribution* as well as of their apparent range of variation. Strictly local forms, such as most good bramble districts produce, have of course an interest of their own; but if we are to be saved from utter bewilderment in our study of the genus their collectors would surely do well to make note of their apparently local character, and to be content to leave them unnamed while they are trying to ascertain whether they occur elsewhere or not.—W. M. R.

***Potentilla reptans* × *procumbens*,** Burbage Wood, Leicester, July, 1896.—H. P. Reader. Fide W. R. Linton.

Alchemilla vulgaris L. b. ***alpestris*** (Schmidt), Dry banks, Saintfield, Co. Down, May, 1896. This is the common form of the plant in Co. Down —C. H. Waddell. "Yes."—E. F. Linton.

***Agrimonia odorata*,** Mill. Wood, Under Martinsell, Wilts., Aug. 20th, 1896.—E. S. Gregory.

***Rosa hibernica*,** Sm. Hedge near Holywood, Co. Down, June and July, 1896. Near Templeton's original station, see Stewart, Flora of N.E. Ireland.—C. H. Waddell.

***Cratægus Oxyacantha*,** Linn. form with persistent petals—Hedge, Saintfield, Co. Down, June 27th, 1896.—Mrs. C. H. Waddell.

Saxifraga cæspitosa Linn. From Garden, June 1891. Root from Arran More, Donegal, collected by H. M. Wallis, Esq., May, 1886.—Comm. A. J. Crosfield. Mr. Crosfield tells us that the plant was determined by Mr N. E. Brown, who also showed it to Mr. J. G. Baker.—E. S. and C. E. S.

Sedum Telephium*,** Woodside, (nr. Luton), Beds., July, 1896.—D. M. Higgins. No fruit, but a. ***purpureum by its leaves —E. S. and C. E. S.

Drosera anglica Huds. × ***rotundifolia*** L. (***D. obovata*** Mert and Koch), Marshy shores of Loch Tallant, Islay V. C. 102. Sept. 2nd, 1896.—A. Somerville.

Drosera anglica* × *rotundifolia (***D. obovata*** Mert and Koch). Loch Clair, near Kinlochewe, Ross, W., August, 1896.—E. S. Salmon, C. E. Salmon.

Callitriche verna ——, Lough Derry, parish of Saintfield, Co. Down, August 18th, 1896.—H. W. Lett. ***C. autumnalis*** Linn.—E. S. and C. E. S.

Callitriche ——, Muddy Ditch, Standing Stone Hill, parish of Anacloan, Co. Down, July 1st, 1896.—H. W. Lett. ***C. stagnalis*** Scop.—A. B.

Callitriche stagnalis Scop. ? Ditch, Saintfield, Co. Down, 1896. Styles persistent, reflexed.—C. H. Waddell. No fruit, hence uncertain.—A. B.

Epilobium ——, Carriden, Linlithgow, July, 1896.—H. G. Geldart. A form of *montanum* L.—A. B.

Epilobium montanum × *parviflorum*, Along "The Becks," Welton, near Hull, E. Yorks., May, 1896.—C. Waterfall. I can see nothing but *E. montanum* L. in this, unless the plant is very different when living, and showing any idea of *parviflorum* in it. —A. B.

Eryngium campestre Linn. Limestone Hill, Weston-S.-Mare, July, 1896.—E. S. Gregory.

Bupleurum rotundifolium Linn. Dunstable Road, Luton, Beds., July 11th, 1896. I have shown this to Mr. James Saunders, and he says it is a new record for South Beds.—D. M. Higgins.

Œnanthe pimpinelloides Linn. Damp meadow ground, near Ripple, Worcestershire, June, 1895.—C. Waterfall. *Œ. silaifolia*, Bieberstein.—A. B.

Peucedanum officinale Linn. Stamford Water, Essex, August 17th, 1896.—R. S. Standen. Mr. Standen writes to us that his plants are from the old well-known locality; it is interesting to know the plant still occurs there.—E. S. and C. E. S.

Galium Mollugo Linn, a. *elatum* (Thuill). Reigate Hill, Surrey, July, 1896.—E. S. Salmon. Very nice specimens of the plant.—A. B.

Hieracium euprepes F. J. Hanb. Basalt Cliffs, Cave Hill, Co. Antrim, July, 1896.—C. H. Waddell. "Yes."—F. J. Hanbury.

H. —— (styles livid). Carriden, Linlithgow, July 1896.—H. D. Geldart. *H. vulgatum* Fries.—F. J. Hanbury.

Campanula rapunculoides Linn. Railway Bank, Luton, Beds., June, 1896.—D. M. Higgins.

Campanula rapunculus Linn. Betchworth Railway Banks, Surrey, September 15th, 1896.—E. S. Salmon. In Bab. Man. ed. 8, p. 230, *C. patula* is distinguished from *C. rapunculus* by the presence of teeth on the calyx-segments, but the above plants of the latter have this character.—E. S. and C. E. S.

Erythræa pulchella. Sandy ground, near sea-shore, Tramore, Co. Waterford, August 10th, 1896.—Coll. Rev. C. H. T. Lett.

Comm. H. W. Lett. I should call it only a *Centaurium* state.—A. B.

Euphrasia officinalis L. *f. paludosa* Towns? Roadside, Saintfield, Co. Down, September 1st, 1896.—C. H. Waddell. (See Ref. No. 1 in supplement in next year's Report.)

Euphrasia officinalis form? Marshy shore of Lake, Aughnadarragh, Co. Down, August, 1896.—C. H. Waddell. (See Ref. No. 2 in supplement in next year's Report.)

Euphrasia brevipila Burnat and Gremli, Kinlochewe, Ross, W., Fide F. Townsend, August, 1896. New County record.—E. S. Salmon.

Euphrasia offiinalis L. var. *nemorosa* H. Mart. Abundant in a field, Ashridge Wood, near Compton, Berks., August, 1896.—A. B. Jackson. (See Ref. No. 3 in supplement in next year's Report.)

Euphrasia Scotica Wettstein (*E. paludosa Towns*). Ben Eay, Ross, W., August, 1896. Fide F. Townsend.—E. S. Salmon, C. E. Salmon. Mr. Townsend, when determining the plant, wrote to us (December, 1896), "I am pleased to see specimens of *E. Scotica* Wetts. = *E. paludosa* Towns. from Rosshire, as it had only hitherto been found in Aberdeenshire." In Journal of Bot., 1897, p. 426, Mr Townsend adds Inverness, Shetland, and Sutherland.

E. Kerneri Wetts. Betchworth, Surrey, September 15th, 1896. Fide F. Townsend.—E. S. Salmon.

Bartsia Odontites Huds. Waste ground, Millersdale, Derbyshire, August, 1896—C. Waterfall. (See Ref. No. 1 in supplement in next year's Report.)

B. Odontites Huds. Stack Yard, Mt. Airey, near South Cave, E. Yorks., July 1896.—C. Waterfall. (See Ref. No. 2 in supplement in next year's Report.)

Bartsia Odontites, Huds. Arable land going towards Goole Moor, W. Yorks., July, 1896.—C. Waterfall. (See Ref. No. 3 in supplement in next year's Report.)

Melampyrum pratense L., b. *latifolium* Bab. Bishopstoke, Hants., June 10th, 1896.—C. Cotton. *M. prateuse*, L.—A. B.

Mentha Bauhini Tenore, or *M. rotundifolia* var. *Bauhini*. Hindringham, Norfolk, September 19th, 1895, Coll. F. Long. Comm. H. D. Geldart.

Mentha ——. Nutfield Green, Surrey, September 17th, 1896. —E. S. Salmon. (See supplement in next year's Report.)

Ballota nigra Linn. Roadside, Wetton, E. Yorks., June, 1896. —C. Waterfall. Var. *fœtida*, Lam.—E. S. and C. E. S.

Chenopodium album Linn. var. c. *viridescens*, St. Am. Wall, Welton, near Hull, E. Yorks., July, 1896.—C. Waterfall *Atriplex erecta* Huds.—A B.

Atriplex deltoidea Bab. var. b. *prostrata* Bab. Amongst rocks on beach, Anstey's cove, S. Devon, September, 1896.—C. Waterfall. *A. Babingtonii* Woods.—A. B.

A. deltoidea Bab. var. C. *prostrata* Bab. Sandy bank on sea-coast, near Corhyn Head, Torquay, S. Devon, September, 1896. —C. Waterfall. *A. deltoidea* Bab.—A. B.

A. deltoidea Bab. Cultivated ground, Gravel pit, Ripple, Worcestershire, September, 1896.—C. Waterfall. New record for the county —A. B.

A. deltoidea Bab. var. *C. prostrata* Bab. Among rocks on Beach, Anstey's Cove, S. Devon, September, 1896.—C. Waterfall. *A. patula* Linn.—A. B.

Suaeda maritima Dum. C. *procumbens* Syme. Fairlie Point, Ayrshire, August 5th, 1896.—A. Somerville.

Polygonum aviculare Linn. Roadside, Welton, near Hull, E. Yorks., July, 1896.—C. Waterfall. Var. *vulgatum* Syme.—A. B.

S. cinerea Linn., a form with a long style. (1) Near Wimborne, Dorset, April 20th and June 24th, 1895. (2) Fruiting catkins only, Dorchester, April 28th, 1892.—E. F. Linton.

S. alba × *fragilis*. Christchurch, S. Hants., May 16th and August 30th, 1894.—E. F. Linton.

S. fragilis L. b. *britannica* F. B. W. Dorset, near Bournemouth, May 11th and July 20th, 1896.—E. F. Linton.

S. triandra L. b. *Hoffmanniana* (Sm.). Wimborne, Dorset, April 27th and July 13th, 1896.—E. F. Linton.

Salix Caprea × *viminalis* (? *S. rugosa* Leefe). Hort. Bournemouth, April 10th and June 28th, 1892. Orig. Bradley, Derby. —E. F. Linton.

Allium oleraceum Linn. var. *carinatum* Sm. Bank of River Ouse, near Selby, E. Yorks., June, 1896.—C. Waterfall. *A. Scorodoprasum* L.—A. B.

Juncus compressus Jacq. In mud of River Ouse, near York, The Ainsty, September, 1887.—C. Waterfall.

Acorus Calamus Linn. Canal, Moira, Co, Antrim, July, 1896. Vide note in Flora N.E. Ireland, page 288.—C. H. Waddell.

Potamogeton pusillus L. b. *tenuissimus*, Koch. Lake, Saintfield, Co. Down, September, 1896.—C. H. Waddell. "Yes."—A.B.

P. pusillus L. b. *tenuissimus* Koch. Deep water, Derry Lake, Co. Down, August, 1896.—C. H. Waddell. "Yes."—A. B.

Zannichellia ——. Southwold, Suffolk E., June 18th, 1896.—E. S. Salmon. *Z. pedicellata* Fries.—A. B. An additional station to those given in the Flora of Suffolk.—E. S. and C. E. S.

Scirpus fluviatilis. Deep ditch of clear water, near Lough Derry, Parish of Saintfield, Co. Down, August 18th, 1896.—H. W. Lett. A clerical error for *S. fluitans* L., we suppose.—E. S. and C. E. S.

Scirpus rufus var. *bifolius*. Aberlady Bay, E. Lothian.—Coll. A. H. Evans, 1896. Ex. herb. H. P. Reader.

Schœnus ——. Beeston Bog, near Cromer, July, 1895.—Coll. A. B. Rankin. Ex. herb. D. M. Higgins. *S. nigricans* L.—A. B.

Carex divisa Huds. Southwold, Suffolk E., June, 1896.—E. S. Salmon. Additional station to those given in the Flora of Suffolk.—E. S. and C. E. S.

C. alpina Sw. Glen Fee, Clova, Forfar, V.C. 90, July 28th, 1896.—A. Somerville.

Deschampsia flexuosa Trin. b. *montana* Hook fil. North Glen Sannox, Arran, V.C. 100, at alt. 2,000 to 2,500 feet, June 22nd and July 22nd, 1896.—A. Somerville.

Catabrosa aquatica Beauv. b. *littoralis* Parn. West Kilbride, Ayrshire, V.C. 75, August 11th, 1896.—A. Somerville.

Bromus madritensis, Linn. Riverside, Clifton, Gloster, June, 1896.—E. S. Gregory. *a. Curtisii*, Bab.—E. S. and C. E. S.

Bromus Curtisii Bab. Clifton Down, Gloster, June, 1889.—H. S. Thompson.

Poa glauca Smith. Cruach Ardran, Mid Perth, at 2,500 feet alt., V.C. 88, August 8th, 1895. Confirmed by Rev. E. S. Marshall.—A. Somerville.

Agropyron pungens, Roem. and Schult. Southwold, Suffolk E, June, 1896.—E. S. Salmon. An additional station to those given in the Flora of Suffolk.—E. S. and C. E. S.

Chara fragilis Desv., form approaching var. *barbata* Gant. Stream, Kinlochewe, W. Ross, August, 1896. Fide H. and J. Groves.—E. S. Salmon, C. E. Salmon.

Chara contraria Kuetz. Near Southwold, Suffolk E., June 15th, 1896. Fide H. and J. Groves.—E. S Salmon New record for the Vice-County.—E. S. and C. E. S.

Chara canescens Loisel. Near Southwold, Suffolk E.—E. S. Salmon. We recorded this new Suffolk plant in Journ. Bot., 1897, p. 21, where we remarked, "this plant has hitherto been recorded only from Cornwall and Dorset, and from Ireland; so its occurrence in Norfolk very considerably extends its range." —E. S. and C. E. S.

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WATSON
BOTANICAL EXCHANGE CLUB

Report for 1897-98.

SEVENTEEN members contributed 1,200 plants this season, a slight decrease from last year, when 18 members sent in 1,342 plants.

It is to be hoped that more members will contribute critical plants for determination (Batrachian *Ranunculi*, *Callitriche*, *Hieracia*, &c.), as it is chiefly amongst these that good work can be done.

Any aliens, accompanied by notes on their habitats probable origin, &c., will be acceptable.

Mr. A. Somerville has very kindly presented to the Club a rubber stamp for marking the distributed plants, so that these, when placed in Herbaria, may readily be distinguished from other specimens.

To the Rev. W. Moyle Rogers and Mr. Arthur Bennett the members are much indebted, and also to the other botanists, whose critical determinations are very valuable to the Club.

The following is the list of the contributing members :—

Mr. E. D. Bostock	14	Mr. J. T. Powell	38
Mrs. Cotton	52	Rev. H. P. Reader	9
Mr. A. J. Crosfield	23	Mr. E. S. Salmon	168
Mr. S. T. Dunn	79	Mr. C. E. Salmon	173
Mr. P. Ewing	47	Mr. R. S. Standen	10
Mr. H. D. Geldart	46	Rev. C. H. Waddell	62
Mr. J. E. Griffith	47	Mr. C. Waterfall	182
Miss D. M. Higgins	60		
Mr. A. B. Jackson	45		1200
Rev. H. W. Lett	145		

E. S. and C. E. SALMON, Distributors
for the year 1897-98.

Papaver dubium, Linn. var. *Lecoqii* (Lamotte). Stockton, Warwickshire, July 9th, 1897. Sap turning yellow on exposure.—S. T. Dunn.

Barbarea præcox, R.Br. Railway bank, Newbury, Berks, May 2nd, 1897.—A. B. Jackson. Correct.—E. S. and C. E. S.

Cardamine amara, Linn., forma. In disused canal, Rugby, Warwickshire. Growing profusely for ten yards along a disused canal, that is sometimes wet marsh, at others, shallow water. The patch was continuous with a smaller quantity of typical *C. amara*, but no intermediates were to be found. The apparent sterility of the anthers would point to an hybrid origin, but the habit and structure is entirely that of *C. amara*, save for the small petals.—S. T. Dunn. "If this plant is really sterile, which seems probable from the specimens, I think it is *C. amara* × *flexuosa*, for not only are the petals intermediate in size but the anthers are much paler in colour than *C. amara*, such a shade in fact as might be expected from a combination between plants with purple and pale yellow anthers respectively. It would be interesting to know the exact colour of the anthers when fresh, and whether the pods were all sterile; also whether *C. flexuosa* was noticed."—E. F. Linton. Mr. Dunn writes recently to say that a few plants of *C. flexuosa* were growing near: also that (from memory) the anthers were of a livid colour and looked as if they were sterile and the fruit was enlarged after flowering, but whether truly fertile was not ascertained.

Thlaspi alpestre, Linn. Canlochan, Forfarshire, July, 1897.—P. Ewing. Var. *occitanum* (Jord.) Mr. Bennett says, "Forfar recorded for aggregate only."—E. S. and C. E. S.

Silene conica, Linn. Runton, Norfolk, June 3rd, 1897. The locality, if not already, will probably in a few months be in the sea.—H. D. Geldart.

Stellaria media, var. *major*, Koch. Ditch bank, Budbrooke, Warwick, May 15th, 1897.—A. B. Jackson. No, *S. umbrosa*, Opiz.—E. S. and C. E. S.

Arenaria sulcata, Schleich. Ben Lawers, Perthshire, July, 1897.—P. Ewing.

Montia fontana, Linn., var. *erecta*, Pers. Basedale, near Castleton, Eskdale, N.E. Yorks., July, 1897.—C. Waterfall. No, var. *repens*, Pers.—E. S. and C. E. S.

Ononis repens, Linn. Totternhoe, Beds, Aug., 1897. —D. M. Higgins. A mixture here, most of the specimens *O. spinosa*, Linn.—E. S. and C. E. S.

Melilotus indica, All. Barley Alien. Twerton, Bath, Sept. 8th, 1897. Vide Journ. Bot. 1897, p. 444.—S. T. Dunn.

Rubus idæus, Linn., var. *obtusifolius*, Willd. Bushy ground, Woodloes, Warwick, v.c. 38, August 1, 1897.—A. B. Jackson and H. Bromwich. "Yes."—W. M. R.

R. suberectus, Anders. Kinlochewe, W. Ross, Aug. 12th, 1896.—E. S. and C. E. Salmon. By Crinan Canal, near Auchindarroch, Argyll (Ref. No. 6), Aug. 9th, 1897. Near Inverneil, Cantire (Ref. No. 12), Aug. 22nd, 1897.—C. E. Salmon. "All correctly named. New county records for W. Ross and Cantire."—W. M. R.

R. hemistemon (P. J. Muell). Royal Common, Surrey, July 10th, 1897.—E. S. and C. E. Salmon. "Rightly named, I believe. The stamens will, I think, be usually found decidedly shorter than the styles, if the observation is made before the fall of the petals; but it is on the very different foliage that I chiefly rely for the distinction of this variety from typical *R. plicatus*. See Journ. Bot. 1892, p. 110."—W. M. R.

R. Lindleianus, Lees. By Crinan Canal, Ardrishaig, Cantire (Ref. No. 1), Aug. 6th, 1897. One of the commonest brambles of the neighbourhood.—C. E. Salmon. "Beautiful specimens of type. County record."—W. M. R.

R. ———. Near Cairnbaan, Cantire (Ref. No. 10), Aug. 19, 1897. Near Port Ann, Loch Gilphead, Argyll (Ref. No. 3), Aug. 7th, 1897.—C. E. Salmon. "Apparently identical with a form which is frequent on the Commons south of London, and which I also have from Warwickshire (Bagnall) and L. Corrib, Ireland (Marshall). I have always thought it a strongly marked small form of the very aggregate *R. rhamnifolius*, W. and N., though in some few features (armature and panicle) recalling *R. Selmeri*, Lindeb, under which (as var. *microphyllus*, Lindeb = *R. villicaulis* var. *alienus*, Murbeck in Aresch, "Some observ." p. 152), Mr. Gelert would place it. Dr. Focke in 1893 expressed a general agreement with my view (with a Barnes Common specimen before him), and in 1897 sent Mr. Marshall the following note on his L. Corrib specimen :—"*R. rhamnifolius*, var. *exilis*, a small leaved form analagous to *Rosa exilis* and several Rubi." The first *rhamnifolius* that I have seen from both counties.—W. W. R.

Mr. Rogers writes later :—"I have just discovered that the small rhamnifolian bramble from Cantire (Ref. No. 10) and Argyll (Ref. No. 3) is the *R. Bakeri*, F. A. Lees, described in Bot. Record Club Rep. 1887, p. 120. I have only now seen Mr. Baker's authentic specimens from Gormire and they leave no room for doubt."

R. pulcherrimus, Neum. By Crinan Canal, Auchindarroch, Cantire (Ref. No. 7), Aug. 12th, 1897.—C. E. Salmon. "Typical. County record."—W. M. R.

R. ———. East Cliff, Bournemouth, S. Hants (Ref. No. F.), July 15th, 1897.—C. E. Salmon. "*R. pulcherrimus*, Neum."—W. M. R.

R. ———. Cairnbaan, Argyll (Ref. No. 5), Aug. 9th, 1897. Roadside near Inverneil Farm, Cantire (Ref. No. 9), August 18th, 1897.—C. E. Salmon. "*R. dumnoniensis*, Bab. New for Cantire."—W. M. R.

R. villicaulis, Koehl. By Crinan Canal, near Lochgilphead, Cantire (Ref. No. 11), Aug. 20th, 1897.—C. E. Salmon. "I believe a form of *R. dumnoniensis*, Bab, with untypical leaves."—W. M. R.

R. villicaulis, Koehl, var. *Selmeri* (Lindeb). Near Port Ann, near Lochgilphead, Argyll (Ref. No. 4), Aug. 7th, 1897.—C. E. Salmon. "I believe rightly named, though it is unusually weak and the stem pieces immature. On the other hand, Mr. Salmon's splendid specimens from Cantire (By Crinan Canal, Ardrishaig (Ref. No. 2), Aug. 6th, 1897) are exceptionally luxuriant specimens of *R. Selmeri* and a record for that county.—W. M. R.

R. rhombifolius, Weihe. Near Walthamstow, S. Essex, Aug. 7th, 1897.—J. T. Powell. *R. rhombifolius* seems to me so very critical a species that I still shrink from definitely naming this plant without seeing a panicle in flower and knowing the colour of the floral organs. Usually its leaves have a coarser toothing than is found on any of these pieces, with more falcate prickles on panicle, rachis, and longer and more strongly ascending lower branches."—W. M. R.

R. lentiginosus, Lees. Silwen Woods, Bangor, July, 1897.—J. E. Griffith. "Yes."—W. M. R.

R. mollissimus, Rogers. Silwen Woods, Bangor, July, 1897.—J. E. Griffith. "I think a woodland form of my *R. mollissimus*."—W. M. R.

R. ———. Charles Hill, Tilford, Surrey, July 10th, 1897.—E. S. and C. E. Salmon. "This is my *R. mollissimus*."—W. M. R.

R. ———. Between Dorking Station (S.E.R.) and Ranmore Common, Surrey (Ref. No. A1), July 24th, 1897. —C. E. Salmon. "This seems to be one of the *Vestiti*, intermediate between *R. mollissimus* and *R. leucostachys;* but I know no definite name for it."—W. M. R.

R. leucostachys, Schleich. Margery and Reigate Hill, Surrey, July, 1897.—E. S. Salmon. "Yes."—W. M. R.

R. ———. Near Tilford, Surrey, July 10th, 1897.—E. S. and C. E. Salmon. "Here again 'near *leucostachys*' seems as far as we can safely get, though I rather suspect a crossing of that species with *R. rusticanus*, Merc. A very handsome plant."—W. M. R.

R. ———. Between Dorking Station (S.E.R.) and Ranmore Common, Surrey (Ref. No. A), July 3rd, 1897. —C. E. Salmon. "I have in my herbarium other Surrey specimens of this beautiful plant (1) near Witley, July 6th, 1897—E. S. Marshall and (2) Leith Hill, Aug., 1890 —J. W. White), together with a Galway and Mayo plant of Mr. Marshall's collecting (June 12th, 1896), a Dorset plant of Mr. Briggs' collecting in 1890, and several specimens of my own from Devon, Dorset and Hants. For years I thought it a variety of *R. micans*, Gren. and Godr., going off from that species towards *R. leucostachys*, Schleich, a view in which Dr. Focke for a time concurred, though last year (on seeing Mr. Marshall's Irish plant) his suggestion was "Near the French *R. leucanthemus*, P. J. Muell." I have not seen authentic specimens of Mueller's type; but our plant comes very near indeed to Genevier's description of it, justifying, I think, our provisional adoption of the name."—W. M. R.

R. ———. Roadside between Colintraive and Loch Riddon, Argyll (Ref. No. 8), Aug. 16th, 1897.—C. E. Salmon. "*R. mucronatus*, Blox. The Rev. E. S. Marshall has collected the same small, neat-leaved form of this species in several N. Scotland counties."—W. M. R.

R. Gelertii, K. Frider. Margery, Reigate Hill, Surrey (Ref. Nos. G & G 1), July 18th and 25th, 1897. —C. E. Salmon; (Ref. No. 3), August, 1897.—E. S. Salmon. "See note on this plant in last year's Report. The very satisfactory material now supplied, while confirmatory (as I think) of last year's determination, seems to make it plain that the Reigate plant can hardly be considered *identical* with the continental *type*; appearing to go off from it towards our glandular forms of *R. Lindleianus*. In most of the characters, however, and conspicuously in the leafy laxer panicle narrowing to the rounded top, with ascending branches and closely felted and glandular (as well as hairy) rachis, pedicels and sepals, the specific connection with *R. Gelertii* is apparent enough.—W. M. R.

R. infestus, Weihe. Reigate Heath, Surrey (Ref. No. 2), Aug., 1897.—E. S. Salmon. "Yes, a strong form." —W. M. R.

R. ———. Near Inverneil, Cantire (Ref. No. 13), Aug. 22nd, 1897.—C. E. Salmon. "I think this must go under my var. *anglicanus* of *R. radula*, Weihe, but it has thicker foliage and still less *radula*-like armature than our S. England form, and perhaps goes a step away from it towards *R. Babingtonii*, Bell-Salt. I have seen the same or a very similar plant growing in the counties of Perth and Dumbarton. New for Cantire."—W. M. R.

R. ———. Margery Wood, near Reigate, Surrey (Ref. No. 1), Aug., 1897.—E. S. Salmon. "*R. rudis*, W. and N."—W. M. R.

R. foliosus, W. and N. Near "Robin Hood," Epping Forest, S. Essex, Aug. 14th, 1897.—J. T. Powell. "Yes." —W. M. R.

R. Powellii, Rogers. Near High Beach, Epping Forest, Essex, July, 1893.—J. T. Powell. "Yes."—W. M. R.

R. corylifolius, Sm. var. *cyclophyllus*, Lindeb. By Loch Killisport, near Achahoish, Cantire (Ref. No. 15). Aug. 31st, 1897.—C. E. Salmon. "I think rightly named and new for Cantire."—W. M. R.

R. corylifolius, Sm. × *rusticanus*, Merc. Near Reigate, Surrey (Ref. No. 4), July, 1897. Plant almost barren.—E. S. Salmon. "Has every appearance of being rightly named, though some of the stem pieces, if taken singly, would fairly represent a form of *R. corylifolius*, without obvious intermixture of *R. rusticanus*.—W. M. R.

So many of the Rev. H. W. Lett's brambles are still so difficult to determine that it seems best for me to report on the whole of them, apart from the specimens contributed by other members; at the same time revising, so far as seems necessary, my suggestions on his plants in the last two reports.—W. M. R.

R. erythrinus, Genev., Whinny Hill, Aghaderg Glebe, Co. Down (Ref. No. 14), 1897, July 20. "Not *erythrinus*, but a remarkable form of *R. Lindleianus*, with terminal leaflet subrotund—acuminate—cordate. Is not No. 32 a small state of the same?"—W. M. R.

R. rhamnifolius, W. & N., Mill Hill Lane, Ballintaggart, P. of Aghaderg, Co. Down (Ref. No. 23), July 22, 1897. "Yes, I think *R. rhamnifolius*, W. & N. sp. coll., but not quite the common British form of it (*R. cardiophyllus*, Lefv. & Muell)."—W. M. R.

R. ———. Shankill, P. of Aghaderg, Co. Down (Ref. No. 48), Aug. 7, 1897. "I suppose a form of *R. rhamnifolius*, sp. coll., but I remember nothing *quite* like it."—W. M. R.

R. pulcherrimus, Neum. Aghaderg Glebe, Co. Down (Ref. No. 3), July 15, 1897. "Yes, typical."—W. M. R.

R. pulcherrimus. Edenderry, P. of Aghaderg, Co. Down (Ref. No. 20), July 21, 1897. "Not typical *R. pulcherrimus*, Neum., though in an aggregate sense it may perhaps be so named."—W. M. R.

R. pulcherrimus, Neum. Mill hill Lane, Ballintaggart, P. of Aghaderg, Co. Down (Ref. No. 11), July 16, 1897. "Yes, I think a form of *pulcherrimus*, with curiously mucronate leaflets. To the same species I should put Ref. Nos. 15, 36, 39 and 41, and perhaps No. 19, though I feel some doubt about the last."—W. M. R.

R. pulcherrimus. Mill hill Lane, Ballintaggart, P. of Aghaderg, Co. Down (Ref. No. 26), July 22, 1897. "I suppose rightly named. Apparently an eglandular form." —W. M. R.

R. villicaulis, Koehl. Mill hill Lane, Ballintaggart, P. of Aghaderg, Co. Down (Ref. No. 9), July 16, 1897. In white thorn hedge, Aghaderg Glebe, Co. Down (Ref. No. 47), Aug. 2, 1897. Fence of field, Whinny Hill, Aghaderg Glebe, Co. Down (Ref. No. 50), Aug. 10, 1897. "Yes, all var. *Selmeri* (Lindeb)."—W. M. R.

R. rusticanus, Merc. Mill hill Lane, Ballintaggart, P. of Aghaderg, Co. Down (Ref. No. 21), July 22, 1897. "Yes."—W. M. R.

R. macrophyllus. Mill hill Lane, Ballintaggart, P. of Aghaderg, Co. Down (Ref. No. 27), July 22, 1897. "Good *R. pulcherrimus*, Neum. A very luxuriant form." — W. M. R.

R. pyramidalis, Kalt. Roadside fence, Shankill, P. of Aghaderg, Co. Down (Ref. No. 49), Aug. 7, 1897. "Yes." —W. M. R.

R. pyramidalis, Kalt. Cave Hill, P. of Anacloan, Co. Down (Ref. No. 33), July 23, 1897. "I suppose a form of it. Not typical."—W. M. R.

R. ———. Aghaderg Glebe, Co. Down (Ref. No. 30), July 23, 1897. "*R. mucronatus*, Blox."—W. M. R.

R. criniger, Linton. Whinny Hill, Aghaderg Glebe, Co. Down (Ref. No. 17), July 20, 1897. "I think a form of *R. Koehleri*, allied to var. *cognatus*, though the subsessile basal leaflets are abnormal in that species. Ref. Nos. 2, 35, 37, 42 and 43 seem the same."—W. M. R.

R. radula, Weihe, var. *echinatoides*, Rogers. In a rhododendron bush, Aghaderg Glebe, Co. Down (Ref. No. 45), July 30, 1897. "Apparently the same form as Mr. Lett's No. 16, 1896. See last report."—W. M. R.

R. Newbouldii, Bab. and allied forms. "The Aghaderg July 29, 1895 ('H'), plant, seems identical with our Salop and Cheshire *Newbouldii*. The Mill Hill Lane, Ballintaggart, Aug. 9, 1895 ('M'), plant seems a strong form of the same, somewhat going off towards *R. Babingtonii*. In the 30th June, 1896 ('3'), plant we have nearly, if not quite, the same panicle as in 'H,' with considerably different stem pieces. Rather further away apparently, though still somewhat allied, are the two 1897 plants with Ref. Nos. 16 and 18."—W. M. R.

R. fuscus, W. and N. Mill Hill Lane, Ballintaggart, P. of Aghaderg, Co. Down (Ref. No. 4), July 16, 1897. "I think most probably a form of *R. Newbouldii*, Bab., though hardly identical with any of the plants above referred to under that name."—W. M. R.

Nos. 1, 5, 6, 8, 13, 24, 29 and 38 (1897) seem only slightly varying forms of one type and not separable from Nos. 15, 16 and 20 of 1896. A year ago I wrote of these 1896 specimens, "Distinct from and yet in some respects strongly recalling *R. hibernicus*," but I could suggest no name. It appears to be a well-marked plant, in panicle armature approaching *R. Koehleri*, though in stem, leaves, &c., differing from that as much as it does from *R. hibernicus*. Now that I have a good series of specimens I shall be in a better position for further study, but it is most desirable that Mr. Lett should carefully trace its distribution and range of variation in his neighbourhood, as it may prove to be a new and widely spread species in N.E. Ireland. The degrees of variation in stem armature are especially remarkable. No. 46 (1897) seems also to belong to the series, near No. 16 (1896), though with different leaves. No. 44 may also be an allied weak form.—W. M. R.

R. Koehleri, W. and N. Mill Hill Lane, Ballintaggart, P. of Aghaderg, Co. Down (Ref. No. 22) July 22, 1897. "Yes, *R. Koehleri*, sp. coll., but a rather weakly armed form of the var. *cognatus* (N.E. Br.)"—W. M. R.

R. Koehleri. W. and N. Roadside fence, Lisnagade, P. of Aghaderg, Co. Down (Ref. No. 31), July 22, 1897. "A beautiful plant, unknown to me. Not *Koehleri*, W. and N., though with somewhat Koehlerian armature; a hybrid ?" —W. M. R.

R. corylifolius, Sm. Ballintaggart, P. of Aghaderg, Co. Down (Ref. No. 12), July 16, 1897. Mill hill Lane, Ballintaggart, P. of Aghaderg, Co. Down (Ref. No. 10), July 16, 1897. "Both, I think, *corylifolius*, but neither typical *sublustris*. Ref. No. 34 also seems corylifolian."— W. M. R.

R. corylifolius var. *sublustris.* Mill hill Lane, Ballintaggart, P. of Aghaderg, Co. Down (Ref. No. 25), July 22, 1897. "I suppose *R. corylifolius*, Sm., though hardly *sublustris*. The specimens are too immature for satisfactory determination."—W. M. R.

Alchemilla vulgaris, Linn. Pelham Woods, N. Lincolnshire, V.C. 54, June 1897.—C. Waterfall. The segregate *pratensis* (Schmidt); new to Vice-county.—E. S. and C. E. S.

A. vulgaris, Linn. Kirkstone Pass, Westmoreland, July 1895. Coll. H. Goss.—R. S. Standen. Is *alpestris* (Schmidt).—E. S. and C. E. S.

A. vulgaris, Linn., var. *alpestris* (Schmidt). Grisedale Pass, Westmoreland, Sept. 8, 1897.—A. J. Crosfield. "Right."—E. F. Linton.

A. vulgaris, Linn., var. *filicaulis* (Buser). Dry basalt cliffs, Sallagh Braes, Co. Antrim, Aug. 1897.—C. H. Waddell. "Two sheets were (1) a. *pratensis* (Schmidt), (2) b. *alpestris* (Schmidt); the rest correctly named."— E. F. Linton.

Rosa ———. Freeholder's Wood, Wensleydale, N. Yorks, Aug. 1897.—C. Cotton. "*R. mollis*, Sm."— W. M. R.

R. canina, var. ? Lisnabrague, P. of Aghaderg, Co. Down, July 21, 1897.—H. W. Lett. "In a bad stage of development for naming. Perhaps *R. mollis*, Sm."—W. M. R.

R. ———. Freeholder's Wood, Wensleydale, N. Yorks, Aug. 1897.—C. Cotton. "*R. canina*, L. var. *lutetiana* (Leman).—W. M. R.

R. ———. Freeholder's Wood, Wensleydale, N. Yorks, Aug. 1897.—C. Cotton. "*R. canina*, L. var. *dumalis* (Bechst)."—W. M. R.

R. ———. Freeholder's Wood, Wensleydale, N. Yorks, Aug. 1897.—C. Cotton. "*R. canina*, L. var. *urbica* (Leman.)"—W. M. R.

R. ———. Freeholder's Wood, Wensleydale, N. Yorks (Ref. No. 1), Aug. 1897.—C. Cotton. "*R. glauca*, Vill. f., with leaves small and leaf toothing not quite simple."—W. M. R.

R. ———. Freeholder's Wood, Wensleydale, N. Yorks, Aug. 1897.—C. Cotton. "*R. glanca*, Vill. var. *subcristata*, Baker."—W. M. R.

R. ———. Freeholder's Wood, Wensleydale, N. Yorks, Aug. 1887.—C. Cotton. "*R. glauca*, Vill. var. *coriifolia* (Fr.)."—W. M. R.

R. ———. Freeholder's Wood, Wensleydale, N. Yorks, Aug. 1897.—C. Cotton. *R. coriifolia*, Fries."—W. M. R.

R. ———. Freeholder's Wood, Wensleydale, N. Yorks, Aug. 1897 (Ref. No. 3).—C. Cotton. "*R. glauca*, Vill., sp. coll. I suppose a form intermediate between vars. *coriifolia* and *Watsoni*."—W. M. R.

R. ———. Freeholder's Wood, Wensleydale, N. Yorks, Aug. 1897 (Ref. No. 2).—C. Cotton. "I suppose this certainly belongs to our aggregate *R. glauca*, Vill., and I think it goes best under *R. Watsoni*, Baker, but the limits of that variety are rather vaguely defined."—W. M. R. "Very poor *Watsoni*."—J. G. Baker.

R. arvensis Huds. var. *gallicoides*, Baker, Borders of Chesterton Wood, Warwick, v.c. 38, July 18, 1897.—A. B. Jackson. "Yes."—W. M. R.

Cratægus Oxyacantha, Linn. Waxholme Lane, nr. Withernsea, S.E. Yorks, May 1897.—C. Waterfall. d. *monogyna* (Jacq.) E. S. and C. E. S.

Saxifraga cernua, Linn. Lawers, Perthshire, July 1897.—P. Ewing.

Hippuris vulgaris, Linn. var. *fluviatilis*, Weber. Growing under water, Hornsea Mere, S.E. Yorks, May 1897.—C. Waterfall. "Submerged state only; not the var."—A. B.

Galium ———. Aghaderg Glebe, Co. Down, June 24, 1897. This *Galium* has been "doing duty" as *G. mollugo* in the N.E. of Ireland. It has lately been pointed out that it is not that species but is *G. erectum*. Which is correct?—H. W. Lett. *G. erectum*, Huds.—E. S. and C. E. S.

Achillea millefolium, L. form with brilliant red flowers. Kilmartin, nr. Ford, Argyll, Aug. 27, 1897.—C. E. Salmon.

Doronicum plantagineum, L. Roadside, North Sydmonton, Hants, April 25, 1897. The plant seems quite naturalised in this locality, there being no gardens near.—A. B. Jackson.

Senecio saracenicus, L. Roadside, Leggygowan, Saintfield, Co. Down, Aug. 1894.—C. H. Waddell.

Arctium intermedium, Lange. Keswick, Cumberland, v.c. 70. Aug. 1897.—A. J. Crosfield. "Yes, new County Record."—A. B.

Cnicus arvensis, var ? or ×. Refuse heaps at Distillery, Belfast, July, 1895, Coll. R. Hanna. These specimens resemble a plant from Garvagh, Co. Londonderry, sent to the Club two years ago under the name *C. arvensis* var. *mitis*, Koch, which was confirmed by the Distributor. It has the same dark coloured stem, but was less vigorous than these specimens, which have been grown in the garden from seedlings. It spreads and multiplies by underground stems very fast. Mr. S. A. Stewart has collected a similar plant in Co. Derry.—C. H. Waddell. *C. arvensis* Hoffm. var. *setosus* (Bess.)—E. S. and C. E. S.

Centaurea nigra L ? var. *decipiens*, Thuill. Minchinhampton Common, Glos. W., Aug. 1897.—H. P. Reader. "*C. nigra*, L. dwarfed by a dry summer or a dry situation."—E. F. Linton.

Hieracium eximium, Backh. var. *tenellum*, Backh. Canlochan, Forfarshire, July 1897. Fide E. F. Linton.—P. Ewing.

H. chrysanthum, Backh. Canlochan, Forfarshire, July 1897. Fide E. F. Linton.—P. Ewing.

H. clovense, Linton, b. *Griffithii*, F. J. Hanb. Nant Francon, nr. Bangor, July 1897.—J. E. Griffith. "There is a good deal of variation both in the leaves and clothing of the heads of these specimens, but this variation seems to be the nature of the plant rather than due to any mixture of specimens. The whole series is, I think, rightly named."—E. F. Linton.

Lobelia Dortmanna, Linn. Loch Errol, Cantire, v.c. 101, Aug. 12, 1897.—C. E. Salmon. New County Record.

Primula acaulis, Linn. × *veris*. Kelsey pits near Rye Hill, S.E. Yorks, June 1897.—C. Waterfall. No, *P. veris* only.—E. S. and C. E. S.

Gentiana nivalis, Linn. Ben Lawers, Perthshire, July 1897. Alt. 3000 ft.—P. Ewing.

G. *baltica*, Murb. Near Loch Riddon, Argyll, Aug. 16, 1897. Confirmed by W. H. Beeby.—C. E. Salmon.

Veronica officinalis var. *glabra*, Bab. 6th edit.=*Allionii*, Don. Vide Flora Hib. Basalt Cliffs, Sallagh Braes, Co. Antrim, Aug. 1897.—C. H. Waddell.

Euphrasia brevipila, Burn et Grem. Staintondale, N.E. Yorks, v.c. 62, Aug. 10, 1897. Fide F. Townsend.—A. J. Crosfield. New County Record.

E. brevipila. Burn et Grem. By Crinal Canal, Auchindarroch, Cantire, v.c. 101, Aug. 6, 1897. Fide F. Townsend.—C. E. Salmon. New County Record.

E. nemorosa, H. Mart. Reigate, Surrey, Sept. 1897. Fide F. Townsend.—E. S. Salmon.

F. Scotica, Wettst. Roadside nr. Port Ann, Argyll, v.c. 98, Aug. 7, 1897. Fide F. Townsend.—C. E. Salmon. Hills behind Ardrishaig, Cantire, v.c. 101, Sept. 1, 1897. Fide F. Townsend—C. E. Salmon. Both new County Records.

Bartsia Odontites, Huds. var. *serotina* (Reichb). Near Cottingham, E. Yorks, v.c. 61, Aug. 1897. Between Brantingham and Wold-dale, E. Yorks, v.c. 61, Aug. 1897. Kilnsey, nr. Spurn Pt., E. Yorks, v.c. 61, Aug. 1897.—C. Waterfall. "These I should call a. *verna* (Reichb)."—A.B.

B. Odontites, Huds. var. *divergens*, Balb. Between Brantingham and Wold-dale, E. Yorks, v.c. 61, Aug. 1897. Near Cottingham, E. Yorks, v.c. 61, Aug. 1897.—C. Waterfall. "These specimens are so badly dried that it is not easy to decide on their name, but I think they are b. *serotina* (Reichb.)"—A. B.

Melampyrum ———. Canlochan, Forfarshire, July 1897.—P. Ewing. *M. pratense*, L.—G. C. Druce.

M. ———. Same locality and date.—P. Ewing. *M. pratense*, L. var. *montanum*, Johnst.—G. C. Druce.

Mentha piperita, Linn. Cult, root from Carnmoney, Co. Antrim, Aug. 1897.—C. H. Waddell, a. *officinalis* (Hull).—A. B.

M. hirsuta, Huds. forma. Braunton Burrows, N. Devon. Aug. 14, 1897. The commonest form on the dunes, quite prostrate, with its leaves placed flat on the sand or short turf. Malinvaud remarks upon a specimen submitted to him, "*M. aquatica, var. hirsuta minor monocephala, forma reducta.*"—S. T. Dunn.

Nepeta Glechoma, Benth. Var. *parviflora*, Benth. Hedge bank bordering the canal at Leamington, Warwick, May 21, 1897.—A. B. Jackson. Yes, *parviflora*, Benth., but this is merely the pistillate form of *N, Glechoma*, which is gyno-diœcious ; in the specimens sent some flowers had rudimentary stamens.—E. S. and C. E. S.

Stachys palustris, Linn., × *sylvatica*. Patterdale, Westmoreland, Aug. 27, 1897.—A. J. Crosfield. "This is one of the petioled and serrate-leaved forms which have been called hybrids between the two species mentioned. It differs from F. Schultz's type of supposed similar parentage in having narrower and more serrate leaves and more bristle-pointed calyx teeth, being about intermediate in position between that botanists '*St. sylvatica* × *palustris*' and the English cornfield form of *St. palustris*. With regard to the general question as to the classification of these forms, one or two considerations seem to warrant a cautious attitude towards those who would attribute to them a hybrid origin. In the first place they do not seem to have been produced artificially by inter-crossing the supposed parents. Secondly, they form parts of a complete chain ending in the common type of *S. palustris*. Thirdly, a very similar series is formed by the closely allied *S. aspera*, Michx. in N. America, where *S. sylvatica* does not occur."—S. T. Dunn.

Galeopsis Ladanum, Linn. Dunstable Road, Luton, Beds, Aug. 1897.—D. M. Higgins. This is *G. augustifolia*, Ehrh.—E. S. and C. E. S.

Atriplex ———. Shore, Killough, Co. Down, Aug. 1897 (Ref. No. 1).—C. H. Waddell. *A patula*, Linn.—A. B.

A. ———. Shore, Killough, Co. Down, Aug. 1897, (Ref. No. 2).—C. H. Waddell. *A. Babingtonii*, Woods.—A. B.

A. ———. Shore, Groomsport, Co. Down, Sep. 1897, (Ref. No. 3).—C. H. Waddell. *A. Babingtonii*, Woods.—A. B.

A. Babingtonii, Woods, Sea sands, Withernsea, E. Yorks, v.c. 61, Sep. 1897.—C. Waterfall. Var. *virescens*, Lange.—A. B.

Suæda maritima, Dum., var. *procumbens*, Syme. Spurn Point, S.E. Yorks, Aug. 11, 1897.—C. Waterfall.

S. maritima, Dum., var. *procumbens*, Syme, Cleethorpes, Lincolnshire, Sep. 1897.—C. Waterfall. Not the variety.—E. S. and C. E. S.

Polygonum maritimum, Linn., Braunton Burrows, N. Devon, Aug. 14, 1897.—S. T. Dunn.

P. aviculare, Linn. var. *arenastrum* (Bor.), Welton Brough, E. Yorks, v.c. 61, June 1896.—Near Cottingham, E. Yorks, v.c. 61, Aug. 1897.—C. Waterfall. "Correct, I believe."—A. B.

Salix lapponum, L. Glen Lochsie, Glen Shee, Forfarshire, July 1897. Fide E. F. Linton.—P. Ewing.

S. nigricans, Sm., same locality and date. Fide E. F. Linton.—P. Ewing.

S. nigricans, Sm. Cam. Chreag, Killin, Perthshire, July 1897. Fide E. F. Linton.—P. Ewing.

Malaxis paludosa, Sw. Hartfield, Sussex, E., 1897. Additional station to those given in Arnold's Sussex Flora. —E. S. Salmon.

Epipactis violacea, Bor. Copses, Reigate Hill, Surrey, Aug. 1897. Fide W. H. Beeby.—E. S. and C. E. Salmon.

Allium Scorodoprasum, Linn. Bank of River Hull, near Hull, S.E. Yorks, June, 1896.—C. Waterfall.

Juncus compressus, Jacq. Tidal bank of R. Esk, nr. Whitby, N.E. Yorks, July 1897.—C. Waterfall. *J. Gerardi*, Loisel.—A.B.

J. diffusus, Hoppe. Thorpe-le-Soken, Essex, Aug. 16, 1897.—R. S. Standen. See Supplement in next year's Report.

J. biglumis, Linn. Ben Lawers, Perthshire, July, 1897.—P. Ewing.

Sparganium simplex, Huds. var. *longissimus*, Fries. Rydal Lake, Westmoreland, in 2ft. of water, v.c. 69, Aug. 1895.—C. Waterfall. *One* specimen sent, Mr. W. H. Beeby thought might *possibly* be *S. affine* (not distributed); of the remainder he reported—"*Sp. simplex state*" called "var. *longissima*, Fries"—I believe I named this plant for Mr. Waterfall some few years since, and I am disposed to adhere to the above determination. There has recently, however, been described in the new German Flora a new species, *Sp. diversifolium*, Ascherson and Gräbner; with this I am not acquainted, but the description indicates some resemblance to Mr. Waterfall's plant, which unfortunately is not in fruit. I am sending a specimen abroad for opinion, as I have not a specimen of the n. sp. for comparison."—W. H. B.

S. ramosum, Huds. Thorpe-le-Soken, Essex, Aug. 16, 1897.—R. S. Standen. No fruit; too young to name.

Potamogeton obtusifolius, Mert. and Koch. Newland, Hull, S.E. Yorks, v.c. 61, Nov. 1897.—C. Waterfall. "Yes; only recorded doubtfully before for vice-county." —A. B.

P. interruptus, Kit. Canal, nr. Market Weighton, S.E. Yorks, Aug. 11, 1897.—C. Waterfall. "Yes."—A. B.

Carex atrata, Linn. Canlochan, Forfarshire, July 1897.—P. Ewing.

C. flacca, Schreb. var.? Common on dry limestone gravel on the Scars, Kendal, Westmoreland, July 1895.—C. H. Waddell. "A state only."—A. B.

C. rariflora, Sm. Meal Odhar, Perthshire, July 1897. —P. Ewing.

C. near *pseudo-bryzoides.* Open space in plantation, nr. Tringmore Gulleries, Brigg, Lincolnshire, N., June 1897. Fide A. Bennett, 1895.—C. Waterfall. See supplement in next year's Report.

C. pulla, Good. Ben Lawers, Perthshire, July 1897.—P. Ewing.

Agrostis setacea, Curtis. Durley Chine, Bournemouth, S. Hants. July 1897, Coll. O. G. Barnes.—J. T. Powell.

A. vulgaris, With. var. *pumila* (L.) Peaty mountain side, Castlewillan, Co. Down, June 1897.—C. H. Waddell. See supplement in next year's Report.

Deschampsia discolor, R. and S. Thorpe Hamlet, Norfolk, June 24, 1897.—H. D. Geldart. See supplement in next year's Report.

Koeleria cristata, Pers. var. *gracilis* (Boreau). Gogmagog Hills, Cambs, June 17, 1897.—J. T. Powell.

Poa ——. Under trees, Ivy Lodge, Newry, Co. Down, July 15, 1897.—H. W. Lett. *P. nemoralis*, L.—E. S. and C. E. S.

P. pratensis, Linn. var. *augustifolia* (Linn). Railway bank, Rugby, Warwick, June 10, 1897.—S. T. Dunn.

Brachypodium sylvaticum, R. and S. var. Railway embankment, near Leek Wootton, Warwick, June 13, 1897. This plant occurs in considerable plenty at intervals along railway embankment in the above locality. It seems to possess the broad flacid leaves and general habit of *B. sylvaticum*, with the creeping rootstock of *B. pinnatum*. A fine series of specimens was forwarded by Mr. Bromwich to the Botanical Exchange Club of the British Isles several years ago, but did not receive a varietal name. Owing to the railway banks being mown or burnt early in the summer it is difficult to obtain mature specimens. I now send the plant hoping to obtain a further opinion on it.—A. B. Jackson and H. Bromwich. See Supplement in next year's Report.

Agropyron pungens, Roem and Schult. Humber fore shore, nr. Hessle, S.E. Yorks, Aug. 11, 1897.—C. Waterfall. See Supplement in next year's Report.

Elymus arenarius, Linn. Sand le mere, Withernsea, S.E. Yorks, v.c. 61, Sept. 1897.—C. Waterfall. New Vice-county Record.

Woodsia hyperborea, R.Br. Craig-na-Lochain, Perthshire. Alt. 2500ft., July 1897.—P. Ewing.

Lycopodium alpinum, Linn. ? Ben Lawers, Perthshire, July 1897. The branches are flattened, but I think it as named, not *decipiens*.—P. Ewing. Yes, not *decipiens*. —E. S. and C. E. S.

Chara fragilis, Desv. Loch Errol, Cantire, v.c. 101, Aug. 12, 1897. Fide H. and J. Groves.—C. E. Salmon. New County Record.

C. fragilis, Desv. approaching var. *barbata*, Gant. Lochan Taynish, Cantire, Aug. 24, 1897. Fide H. and J. Groves.—C. E. Salmon.

C. fragilis, Desv. approaching var. *delicatula*, Braun. Stream at Kilmartin, near Ford, Argyll, Aug. 27, 1897. Fide H. and J. Groves.—C. E. Salmon.

Lamprothamnus alopecuroides, Braun. Near Langton Herring, Dorset, July 14, 1897.—C. E. Salmon.

Supplement to Report, 1896-97.

Bartsia Odontites, Huds. (Ref. Nos. 1 and 2). "I think they are B. *serotina* (Reichb.)"—A. B.

Mentha ———. Nutfield Green, Surrey, Sep. 17, 1896.—E. S. Salmon. The Rev. W. R. Linton, to whom specimens were sent, reported as follows:—"It is apparently sterile, the oldest calyces on the specimens sent me show no sign of the ovary forming fruit; hence it is probably a hybrid. *Sativa* is a hybrid of *hirsuta* with *arvensis*, and invariably sterile, but I suppose *sativa* pollen might fertilize *rubra*. Your plant approaches *sativa* in being more hairy than *rubra*; the pedicels are in the majority of cases slightly pubescent with reflexed hairs. The deep cutting and perhaps the shape (narrow) of the leaves belongs to *sativa* rather than *rubra*. Therefore I suggest that the plant may be a *rubra* × *sativa* form, though with hesitation."

TREASURER'S BALANCE SHEET, 1897.

Receipts.

	£	s.	d.
Balance from 1896	5	14	11
Subscriptions 1897	6	0	0
	£11	14	11

Expenditure.

	£	s.	d.	£	s.	d.
Printing—						
W. Sessions, 13th Report	4	2	6			
Desiderata List...........	0	5	6			
				4	8	0
Distributor's Expenses				0	16	2
Secretary's „				0	10	6
Treasurer's „				0	3	10
Balance				5	16	5
				£11	14	11

JAMES T. POWELL, Hon. Treasurer.

SUBSCRIPTIONS, 1897.

	£	s.	d.
Cotton, Mrs.	0	5	0
Crosfield, A. J.	0	5	0
Ewing, P.	0	5	0
Geldart, H. D.	0	5	0
Gregory, Mrs. E. S.	0	5	0
Griffith, J. E.	0	5	0
Higgins, Miss D. M.	0	5	0
Knoop, H. L.	0	5	0
Lett, Rev. W. H.	0	5	0
Mennell, H. T.	0	5	0
Powell, J. T.	0	5	0
Praeger, R. L.	0	5	0
Reader, Rev. H. P.	0	5	0
Salmon, E. S.	0	10	0
Salmon, C. E.	0	10	0
Somerville, A.	0	5	0
Standen, R. S.	0	5	0
Thompson, H. S.	0	5	0
Waddell, Rev. C. H.	0	5	0
Waterfall, C.	0	5	0
Woodhead, T. W.	0	10	0
	£6	0	0

THE

FIFTEENTH ANNUAL REPORT

OF THE

WATSON
Botanical Exchange Club,

1898-99.

Referees:

J. G. BAKER, F.R.S., F.L.S., 3, Cumberland Road, Kew.
ARTHUR BENNETT, F.L.S., High Street, Croydon.
Rev. **W. MOYLE ROGERS**, F.L.S., Chetnole,
Grosvenor Road, Bournemouth West.

Distributors:

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Parkstone, Dorset.

Hon. Secretary:

T. A. COTTON, F.L.S., F.Z.S., The Mount,
Bishopstoke, Hants.

"Labor Omnia Vincit."

Eastleigh:
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1899.

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WATSON
BOTANICAL EXCHANGE CLUB.

REPORT FOR 1898-99.

A LARGER NUMBER OF SPECIMENS than of late years was sent in, totalling 1396. Twenty members contributed, and the material, in most cases, was well chosen.

It is to be regretted that not a single specimen of *Hieracium* and but one species of *Rosa* was sent; there was also an absence of such critical plants as Batrachian *Ranunculi.*

Critical genera should be better represented, if possible.

A number of interesting aliens were sent in; the value of these would be greatly increased if members would give full particulars of the conditions under which the plants were growing, the probable source of origin, degree of naturalization, &c.

With a view of keeping the Club Desiderata List more in touch with the contributing members, it is asked that each member will send in with the plants for the next distribution a list of his desiderata *not at present on the Club List.*

Mr. Arthur Bennett, Rev. W. Moyle Rogers, Rev. E. F. Linton, Rev. W. R. Linton, Mr. S. T. Dunn, and others, have done much to help in naming the specimens contributed and making notes upon them.

The plants were sent in by the following members :

Mr. A. Bennett	65	Mr. J. T. Powell	49
Mr. A. J. Crosfield	25	Rev. H. P. Reader	57
Mr. S. T. Dunn	97	Mr. E. S. Salmon	26
Mr. G. Goode	47	Mr. C. E. Salmon	139
Mr. H. Goss	24	Mr. A. Somerville	53
Miss D. M. Higgins	32	Mr. R. S. Standen	29
Mr. A. B. Jackson	47	Mr. H. S. Thompson	74
Rev. H. W. Lett	35	Rev. C. H. Waddell	108
Rev. E. F. Linton	30	Mr. C. Waterfall	304
Mr. H. T. Mennell	15		
Mr. D. T. Playfair	140		1396

E. S. & C. E. Salmon,
Distributors for the year 1898-99.

Ranunculus acris, L., forma subfœmina — Alluvial meadows, Rugby, June, 1898.—A somewhat common form in meadows by the Avon at Rugby. On cultivation of wild plants it was found that the form was perpetuated from the same root, but in no case from seed.—S. T. Dunn.

Papaver somniferum, L. var. *hispidum.* H. C. Wats. Hessle, nr. Hull.—Chalk waste in chalk pit. Sept., 1898. C. Waterfall. "From the appearance of the specimens they might be of recent garden origin. The Opium Poppy is widely distributed as a garden stray in England, but it is seldom at all permanent. In the present form it seems, however, to have established itself as a cornfield weed in the neighbourhood of Leatherhead and Dorking on the Chalk Downs. Brewer (Fl. of Surrey) recorded it as 'rather abundant in 1826 in cornfields . . . . . . nr. Leatherhead.' In 1890 and for several years afterwards it was observed under the same conditions near Bagden Farm, above Dorking. It was there in a very dwarf condition and strongly hispid. It is not certain from what country the species originates, but its cultivation is undoubtedly very ancient."—S. T. Dunn.

P. Rhœas, L. var. *strigosum* (Boenn). Near Willerby, E. Yorks—v.c. 61, Sept., 1898.—C. Waterfall.

P. dubium, L. Near Ripple, Worcestershire, v.c. 37—July, 1898.—C. Waterfall. Probably *Lamottei* (Bor.), but colour of sap should be observed on gathering and noted on label.—E.S. and C.E.S.

P. dubium, L. Grosmont, nr. Whitby, N. Yorks, v.c. 62, July, 1897. Sap remaining white on exposure.—C. Waterfall. Var. *Lamottei* (Bor.)—E. S. and C. E. S.

Cardamine amara, Linn. forma, Rugby, Warwickshire.—S. T. Dunn. Mr. Dunn sent later some fruiting specimens of this plant (see W. B. E. C. Rep. 1897-98, p. 4) to the Rev. E. F. Linton, who reported as follows :—"Too fertile for the supposed hybrid. A small flowered form."

Eruca sativa, Lam. Barley alien. Twerton, Bath, 8/9/97.—A frequent companion of "corn-siftings" aliens, especially in the case of corn from the East. Its appearance on canal and river dredgings is due to the habit of discharging mill refuse into any convenient waterway.—S. T. Dunn.

Bunias orientalis, L. Field E of Margery Wood, Reigate Hill, Surrey, July 3, 1898. Fide A. Bennett—Alien.—C. E. Salmon.

Alyssium maritimum, L. Fort George, Guernsey, 31st May, 1896.—D. T. Playfair. "In or near a garden? A native of the Mediterranean region, Canaries and Azores. In other localities it is introduced, probably always by horticulture, and occasionally naturalised."—S. T. Dunn.

Sinapis arvensis, L. var. *orientalis*, Murr.—In cultivated and waste ground near Rugby, 1898.—S. T. Dunn.

Lepidium virginicum, L. Rugby, June, 1898.—Found in a disused quarry where garden rubbish was thrown. It is possible that it is occasionally used in place of common cress (*Lepidium sativum*, L.). Its home is in N. America.—S. T. Dunn.

Rapistrum rugosum, All. var. *glabrum*, Hort. Twerton, Bath, 8/9/1897. A rare alien introduced with barley, &c.,

and found where their siftings have been thrown.—S. T. Dunn.

Polygala ———. Blea Gill, Teesdale, Durham, June, 1898—H. T. Mennell. *P. oxyptera*, Reichb.—New to v.c. 66.—E. S. and C. E. S.

Cerastium glomeratum, var. *apetalum*, Dum. Oliver's Battery, Winchester, v.c. 12, May, 1898.—A. B. Jackson. "The petals are absent in the flowers I have examined. Rightly named."—E. F. Linton. Additional to v.c. 12.

Stellaria media, Cyr. var. *major*, Koch. Nr. Sutton-on-Hull, E. Yorks, v.c. 61, June, 1897. — C. Waterfall. See supplement in future report.

S. umbrosa, Opiz. Pirniss Wood, Balmuto, Fife, 6, 1876.—Coll. J. T. Syme.—A. Bennett.

S. holostea, L. variety with laciniate petals. Sellack, Herefordshire, May, 1873.—Coll. A. Ley.—A. Bennett.

Arenaria serpyllifolia, L. var. *leptoclados* (Guss.). Wall, Harbury, Warwickshire, v.c. 38, 10/7/97.—A. B. Jackson. New record for Vice county 38.

A. leptoclados ?— Cloverfield, Woodchester, Glos. W., 8/98.—H. P. Reader. "Yes."—A. B.

Sagina apetala, Linn. var. *prostrata*, Bab. Great Malvern, Worcestershire, v.c. 37, July, 1898. — C. Waterfall.

Buda media, Dum. (= *Lep. marginatum*, Koch). South of Fairlie, Ayrshire — v.c. 75, August 4, 1898 — confirmed by A. Bennett.—A. Somerville.

Elatine Hydropiper, L. Canal nr. Lisburn, co. Antrim, Sept., 1898. — Coll. J. H. Davies. — C. H. Waddell. Very luxuriant specimens of this species, some of the pieces three or four inches, with leaves much larger and broader than is usual, perhaps caused by growing in deep water of the canal; nothing so large to be found at Kew, but undoubtedly *hydropiper*.—E. S. and C. E. S.

Hypericum elatum, Ait. Hall Wood, Thorpe-le-Soken, Essex, 8, 98.—R. S. Standen. "Very near the *H. elatum* grown at Kew in Aiton's time, which had, however, rather broader leaves. The specimens show well the variations of leaves, sepals, and proportional size of petals, which has led to so much confusion as to the systematic position of the plant."—S. T. Dunn.

Geranium sanguineum, L. var. *prostratum* (Cav.). Silloth, Carlisle, July 1, 1898. — D. M. Higgins. Not the variety.—E. S. and C. E. S.

Erodium cicutarium, L'Herit. Kilnsey Warren, Spurn Head, E. Yorks, v.c. 61, August, 1898. — C. Waterfall. *a. vulgatum*, Syme.—E. S. and C. E. S.

E. cicutarium, L'Herit. Ampthill, Bedfordshire, July 15, 1898.—D. M. Higgins. Var. *vulgatum*, Syme.—E. S. and C. E. S.

Oxalis corniculata, L. Sark, 24th May, 1897.—D. T. Playfair. "Presumably from a garden. Wild in Asia and America, but introduced in Europe. As it is not mentioned by older British botanists it is probably of comparatively recent appearance here even as a garden plant. It is now frequently recorded as an escape. De Candolle considered it to be naturalised in the British Isles."—S. T. Dunn.

Ononis repens, Linn. Warden Hills, Luton, Beds, July, 1898.—D. M. Higgins. *a. inermis*, Lange.—E. S. and C. E. S.

Lotus corniculatus, L. var. *crassifolius*, Pers. Spurn Head, E. Yorks, v.c. 61, August, 1898. — C. Waterfall. "*L. corniculatus*, L. var. *villosus*, Seringe. The mould on the specimens should be washed off with spirits of wine."—E. F. Linton.

Vicia gracilis. Loisel. Nr. Bawdrip, Somerset, June, 1898.—H. S. Thompson. Correct.—E. S. and C. E. S.

Rubus plicatus, W. and N. Reigate Heath, Surrey, July 10, 1898, No. 1.—C. E. Salmon. "Yes."—W. M. R.

R. ———. Hedgebank, Saintfield, co. Down, Sept. 1898, No. 65.—C. H. Waddell. "Apparently not quite *R. incurvatus.* I should like to see a better series."—W. M. R.

R. Lindleianus, Lees. Woolpit Warren, W. Suffolk, July 30, 1898, No. 4.—J. T. Powell. "Undoubtedly *R. Lindleianus*, Lees, a broad-leaved form that I know well."—W. M. R.

R. nemoralis, P. J. Muell, var. *glabratus.* Bab. Woolpit Warren, W. Suffolk, August 5, 1898, No. 7.—J. T. Powell. "I think perhaps a form of *R. nemoralis v. glabratus* as Mr. Powell supposed, but the stem pieces are peculiar."—W. M. R.

R. pulcherrimus, Neum. Woolpit Warren, W. Suffolk, August 5, 1898, No. 6.—J. T. Powell. "With Mr. Powell I cannot separate this from *R. pulcherrimus*, Neum., but it is an extraordinarily glandular form of it."—W. M. R.

R. ———. Reigate Heath, Surrey, July 10, 1898, No. 2.—C. E. Salmon. "Probably *R. dumnoniensis*, Bab., but unfortunately the specimens are too immature for certain determination, especially the stem pieces. In normal well developed plants of that species the prickles are longer, the leaflets broader, and the sepals reflexed. I have no other Surrey record for it."—W. M. R.

R. rusticanus, Merc. Willerby Lane, nr. Cottingham, E. Yorks, v.c. 61, Sept., 1898. — C. Waterfall. "Yes." —W. M. R.

R. ———. Lisnagade, co. Down, No. 3, 30/7/98.—H. W. Lett. "*R. Schlechtendalii*, Weihe (typical)."—W. M. R.

R. macrophyllus, var. *Schlechtendalii*, Weihe. Saintfield, co. Down, August, 1898.—C. H. Waddell. "Yes." —W. M. R.

R. chlorothyrsos, Focke? Trailing over bushes in shrubbery. Magheralin, co. Down, July 20, 1896.—C. H. Waddell. "I am still unable to name this. Though in panicle somewhat recalling both *R. chlorothyrsos* and *R. Questierii*, the very mixed stem armature separates it entirely from both these species, the long stamens and large petals being also quite different from those of *R. chlorothyrsos*. Specimens from bushes growing in the open might be easier to name. Perhaps a hybrid. I see no fruit in these sheets."—W. M. R.

R. ———. Lisnagade, co. Down, No. 2, 30/7/98. —H. W. Lett. "A remarkable form of *R. Questierii*, Lefv. and Muell, very near the type in most respects, but conspicuously different from it in the broad cylindrical-corymbose ultra-axillary panicle top with many flowered long-peduncled branches and loosely reflexed sepals. The prickles on its very stout stem are also proportionably much shorter. New for Ireland. Several of Mr. Lett's 1897 *Rubi* (especially his Nos. 5, 8, 13, 16 and 24) seem rather near to this 1898 No. 2, though not identical with it."—W. M. R.

R.———. Lisnagade, co. Down, No. 5, 30/7/98.—H. W. Lett. "I suppose a var. of *R. micans*, Gren. and Godr."—W. M. R.

R.———. Glen behind Worthy, Porlock Weir, Somerset S., August 3, 1898. No. 4.—C. E. Salmon. "Undoubtedly *R. pyramidalis*, Kalt, though a very weak form of it."—W. M. R.

R.———. Lisnagade, co. Down, July 30, 1898. No. 7.—H. W. Lett. "A difficult form. Perhaps shade grown (and so very exceptionally thin leaved), *R. pyramidalis*, Kalt."—W. M. R.

R. leucostachys, Schleich. Field, Worthy, Porlock Weir, Somerset, S., August 15, 1898. No. 7.—C. E. Salmon. "Certainly very near to *R. leucostachys*, but derived, I think, from the varying hybrid *R. leucostachys* × *rusticanus*."—W. M. R.

R. Gelertii, Frider. Margery, Reigate Hill, Surrey. No. 8, August 28, 1898.—C. E. Salmon. "Yes."—W. M. R.

R.———. Glen behind Worthy, Porlock Weir, Somerset, S., August 3, 1898. No. 5.—C. E. Salmon. "I cannot match these specimens. On the whole they seem nearest to R. *anglosaxonicus*, Gelert, while differing from that species in several particulars, and especially in the longer pointed and less coarsely toothed leaflets and the much broader panicle but little narrowed above and with darkly coloured unfelted rachis. At first sight perhaps it rather suggests my var. *anglicanus* of *R. radula*, Weihe; but it is quite without the true Radulan stem-clothing."—W. M. R.

R.———. Lisnagade, co. Down, No. 4, 30/7/98.—H. W. Lett. "*R. radula*, Weihe (nearly typical)."—W. M. R.

R. longithyrsiger, Lees. Glen behind Worthy, Porlock Weir, Somerset, S., August 12, 1898. No. 6.—C. E. Salmon. "Yes."—W. M. R.

R.———. Reigate Heath, Surrey, July 17, 1898. No. 3.—C. E. Salmon. "One of two or three closely allied forms that we are placing under *R. hystrix*, Wh. and N. connecting it with typical *R. rosaceus*, Wh. and N. As Dr. Focke admits, "A hard and fast limitation of the forms of *R. hystrix* appears to be impossible." Our English plants seem nearer to the form found by him near Bremen than to the typical *R. hystrix* of Rub. Germ., originally found by Weihe at Mennighüffen in the Minden district. See Journ. Bot. 1892, 338."—W. M. R.

R.———. Open field, Saintfield Vicarage, co. Down, August 12, 1898. No. 66.—C. H. Waddell. "These pieces can hardly be separated from the aggregate *R. Koehleri*, Wh. and N., on the whole coming nearest to var. *pallidus*, Bab. (non Wh. and N.). But they show an extraordinary range of variation in armature, especially in the stem, parts of which might be said to be quite unKoehlerian. A thorough examination of these forms *in the living bushes* may yet bring to light a new type."—W. M. R.

R.———. Lisnagade, co. Down, July 30, 1898. No. 1.—H. W. Lett. "Best placed, I think, as a form or variety under *R. Drejeri*, G. Jensen; nearer perhaps on the whole to vars. *Leyanus* and *hibernicus* than to the type, especially in the long-pointed leaflets; in armature going off from all three towards *R. cognatus* N. E. Br. From that and all Koehlerian forms it may be distinguished by the subsessile leaflets and patent or erect fruit sepals. Usually also the armature seems less conspicuously mixed than in *R. Koehleri* and its allies. Cf. first and last notes on p. 11 of the 1897-1898 Report."—W. M. R.

Potentilla ×. Paths in woods near Rugeley, Staffs. 9/98.—H. P. Reader. "Only autumnal *P. procumbens*, Sibth., in my opinion."—E. S. Marshall.

Agrimonia odorata, Mill. Holmwood, Surrey, August, 1894.—H. T. Mennell.

Poterium muricatum (Spach). Cloverfield, Woodchester, W. Gloucestershire, 8/1898.—H. P. Reader. "Is var. *platylophum* (Jord). Here, as probably in most cases, sown purposely for fodder. Almost the extreme form of this branch of the species. Leaves very marked, but as in most of the genus not to be relied on for the separation of species. Native in S. Europe and cultivated throughout the more northern countries. A new record for v.c. 34."—S. T. Dunn.

P. muricatum, Spach. Croydon, Surrey, July, 1898. —H. T. Mennell. "Presumably cultivated. This is var. *stenolophum* which connects *P. muricatum* with *P. Sanguisorba.* It is difficult to know where to draw the line between the so-called species, *P. Sanguisorba*, *muricatum*, *Magnolii*, and *Verrucosum*, the difference between which are matters of degree—in the size of the wings and corrugations of the fruit—and not convincing even in print."—S. T. Dunn.

Rosa stylosa, var. *systyla* (Bast.)—Lane, The Old Hills, nr. Gt. Malvern, Worcestershire, v.c. 37. June 1898.—C. Waterfall. "Yes."—W. M. R.

Pyrus germanica, Hook f. Redstone Hill, Surrey, June, 1898. — A. J. Crosfield. "If this is from the original locality recorded in Brewer's Flora of Surrey it has little claim to be considered native. It is of more frequent occurrence in other counties, and has been considered indigenous by some botanists, but the weight of evidence is against them, and would place its limit as a native no further to the N.W. than Greece."—S. T. Dunn.

Cratægus oxyacantha, Linn, v. *oxyacanthoides* (Thuill). Wray Common, Reigate, Surrey, May 15, 1898.—Styles two.—E. S. and C. E. Salmon.

C. Oxyacantha, Linn. var. *oxyacanthoides* (Thuill). Hardwick Wood, Cambs., May 22, 1897.—G. Goode. Yes, but these specimens are apparently chiefly one styled not two, as is more commonly the case in *oxyacanthoides.* —E. S. and C. E. S.

Sedum album, Linn. Terrington, nr. Malton, N. Yorks, Old Walls, June, 1898.—Old Wall, near Great Malvern, Worcestershire, v.c. 37 July, 1898. — C. Waterfall. Material too poor to determine to which segregate these belong.—E. S. and C. E. S.

Drosera anglica, Huds. × *D. rotundifolia*, *L.* Sligachan, Skye, Sept. 13, 1898.—D. T. Playfair.

Callitriche truncata, Guss. Kings Mill, Guernsey, May 25, 1897.—D. T. Playfair. No fruit to be found upon the specimens.—E. S. and C. E. S.

Œnothera odorata, Jacq. Burnham, Somerset, July, 1898. — H. S. Thompson. "A native of Patagonia. Recorded from the sandhills in this neighbourhood in Somerset by Murray (Fl. Somerset), who considered it hardly naturalised."—S. T. Dunn.

Apium nodiflorum, Reichb. fil. var. *ocreatum*, Bab. Near Lag, Arran, v.c. 100, July and August, 1897. Confirmed by A. Bennett.—A. Somerville.

Carum Carvi L. New railway embankment, Rugby, 1898. Associated with numerous garden plants, and probably due, with them, to the use for making the embankment of soil removed in cutting through cottage gardens, &c., in the neighbouring town.—S. T. Dunn.

Œnanthe pimpinelloides, L. Meadows near Bridgwater, Somerset, August, 1898. — H. S. Thompson. Right.—E. S. and C. E. S.

Œ. pimpinelloides, Linn. Clevelode, near Great Malvern, Worcestershire, v.c. 37, July, 1898. — Near Forthampton, Gloucestershire, v.c. 34, July, 1898.—C. Waterfall. Rightly named from both counties.—E. S. and C. E. S.

Œ. Lachenalii, Gmel. Huntspill, Somerset, August, 1898. Root stems reddish, no tubers.—H. S. Thompson. Right.—E. S. and C. E. S.

Aster Salignus Willd. Wicken Fen, Cambs., Sept., 1898.—G. Goode. "If the now well-known Wicken Fen plant is Willdenow's species and that is rightly referred to *A. paniculatus*, Lam, by Gray (Syn. Fl. N. Am. 188.), the origin stock is an abundant native of low moist ground in Northern U.S.A."—S. T. Dunn.

Cotula coronopifolia, L. (introduced by Lady Cust and now naturalized). Ditch at Leasowe Castle, Cheshire, Oct., 1888. Coll. Mrs. Winter.—A. B. Jackson. "Contributed to the London B. E. C. from the same locality in 1884. Native of S. Africa, N. America, and New Zealand, established in Europe since last century."--S. T. Dunn.

Senecio vulgaris, L. var. *radiatus*, Koch. Quenvais, Jersey, May 26, 1897.—D. T. Playfair.

Ciucus arvensis, Hoffm. var. *setosus* (Bess). Casual, distillery grounds, Belfast. (Has also become naturalized at Garvagh, co. Derry.) Sept., 1898. Coll. R. Hanna.—C. H. Waddell. "Not quite the extreme form but a long way from the type of the species. It would be interesting to know the conditions of the appearance and gradual return to type of this variety. May it be understood from the Derry record that the variety has been known in the same locality and reproducing its kind for a number of years?"—S. T. Dunn.

Crepis nicæensis, Balb. Newly made embankment on the Great Central Railway, near Rugby, and in a neighbouring pasture of two or three years' standing, from which it doubtless originated, July, 1898. It has been noticed under similar conditions in many counties. Nyman describes the species as native in S. Europe and widely spread sporadically elsewhere. In England it is probably due in all cases to the sowing of impure agricultural seed.—S. T. Dunn.

Primula ? Hardwick Wood, Cambs., April 21, 1898.—G. Goode. "Pure *P. elatior* I think."—Miller Christy.

P. acaulis × *veris.* Hardwick Wood, Cambs., April 23, 1898.—G. Goode. "No, I think pure *elatior.*"—M. C.

P. elatior × *veris.* Hardwick Wood, Cambs., April 23, 1898.—G. Goode. "Certainly not; pure *elatior* I think."—M. C.

P. acaulis × *veris.* Hardwick Woods, Cambs, April, 23, 1898.—G. Goode. "Perhaps pure *elatior*, but I think crossed with *acaulis.*"—M. C.

P. ———? Hardwick Wood, Cambs., April 23, 1898. — G. Goode. — "Perhaps pure *elatior*, but more probably *acaulis* × *elatior.*"—M. C.

P. caulescens ? Hardwick Wood, Cambs., April 23, 1898.—G. Goode. "? Pure *elatior*, but possibly *acaulis* × *elatior.*"—M. C.

P. caulescens. Hardwick Wood, Cambs., April 23, 1898.—G. Goode. "I think pure *elatior.*"—M. C.

P. elatior × *veris.* Hardwick Wood, Cambs., April 21, 1894.—G. Goode. "Certainly not; pure *elatior*, I think."—M. C.

P. elatior, Jacq. Hardwick Wood, Cambs., April 21, 1894.—G. Goode. "I think so."—M. C.

P. caulescens. Hardwick Wood, Cambs., April 21, 1894. — G. Goode. "*P. acaulis* × *elatior*, I believe."—M. C.

P. acaulis × *elatior*, near *elatior*. Hardwick Woods, Cambs., April 23, 1898.—G. Goode. "May be, but looks pure *elatior*."—M. C.

P. farinosa, Linn. var. *acaulis*. Teesdale, Yorks, May, 1892.—Quite permanent in one locality, and all the plants are of this variety in a small area.—H. T. Mennell.

P. scotica. Hook. Houton, Orkney, 1877. Coll. J. T. Syme.—A. Bennett.

Echium plantagineum, L. Gallow Hill, St. Helier's, Jersey, May 26, 1897.—D. T. Playfair. "Correct. Any light on the source would have been welcome. It is a common weed of the East that has appeared once or twice as a grain importation in England."—S. T. Dunn.

Verbascum Lychnitis, L. var. *micranthum*, Moretti. Bossington, Somerset S., July 25, 1898. Flowers bright yellow.—C. E. Salmon. See note in Journ. Bot. 1894, p. 23, by Mr. S. T. Dunn.

Euphrasia officinalis, Linn. Totternhoe, Bedfordshire, August 29, 1898.—D. M. Higgins. See supplement in future Report.

Bartsia Odontites, Huds. Barton, Bedfordshire, July 21, 1898.—D. M. Higgins. "Var. *serotina* (Reichb.). There is much variation in the angle of ascension of the branches in this gathering, tending to connect *B. serotina* (Reichb.) with var. *divergens*, Balb."—E. F. Linton.

B. Odontites, Huds. Between Kilnsey and Easington, E. Yks., v.c. 61, August, 1898.—C. Waterfall. "This also is var. *serotina* (Reichb.) in a less advanced state."—E. F. L.

B. Odontites, Huds. Carey Chalk Pit, Willerby, E. Yks., v.c. 61, Sept., 1898.—C. Waterfall. "Var. *serotina* (Reichb.)"—E. F. L.

B. Odontites, Huds. Kelsey Pits, E. Yks., v.c. 61, Sept., 1898.—C. Waterfall. "Var. *serotina* (Reichb.). Is the typical form *verna* anything more than a luxuriant form of 'var. *serotina*,' with the foliaceous parts more fully developed in proportion to the flowers?"—E. F. L.

Melampyrum pratense, L. var. *hians*, Druce. Watersmeet, nr. Lynmouth, Devon, N.—July 26, 1898. Fls. orange-yellow, corolla gaping — Fide G. C. Druce. — C. E. Salmon.

M. pratense, L. var. *hians*, Druce. Porlock Weir, Somerset S., v.c. 5, July 28, 1898. — Fls. orange-yellow, corolla gaping.—Fide G. C. Druce.—C. E. Salmon. New County Record.

Mentha No. 1. Marshy places in wood, Saintfield, co. Down, Sept., 1895. Flowers very sparingly.—C. H. Waddell. "Seems state of *M. hirsuta*, resulting from growing in shade."—W. R. Linton.

M. —— *No. 2.* Same locality, June, 1896. Flowers very sparingly.—C. H. Waddell. "?"—W. R. L.

M. ———. Woodchester, Glos. W., 8/98.—H. P. Reader. "*M. paludosa*, Sole, not so pronounced as some I have seen."—W. R. L.

Calamintha officinalis, Moench, var. *Briggsii*, Syme. Bossington, August 19; Selworthy, August 10; Culbone, July 28, 1898. Somerset S.—C. E. Salmon.

Galeopsis ? Roadside, Milton, Stirlingshire, July, 1898.—C. H. Waddell. "*G. versicolor*, Curt."—E. S. and C. E. S.

Herniaria glabra, L. var. *subciliata*, Bab. St. Aubin's Bay, Jersey, May 26, 1897.—D. T. Playfair.

Polygonum aviculare, Linn. var. *agrestinum* (Jord). The East Park, Hull, E. Yks., v.c. 61, August, 1898.—C. Waterfall. "Yes."—W. R. Linton.

P. aviculare, Linn. var. *arenastrum* (Bor.). Welton, nr. Hull, E. Yks., v.c. 61, June, 1896.—C. Waterfall. "Rather a coarse state of the variety, but correct."—W. R. L.

P. aviculare, Linn. var. *arenastrum* (Bor.). Cleethorpes, Lincolnshire, v.c. 54, Sept., 1897.—C. Waterfall. "Yes, good *arenastrum* I should say."—W. R. L.

P. aviculare, Linn. var. *arenastrum* (Bor.). Beverley Road, Hull, E. Yks. v.c. 61, August, 1898.—C. Waterfall. "This seems to me as near *rurivagum* as *arenastrum*."—W. R. L.

P. aviculare, Linn. var. *arenastrum* (Bor.). Near Newland, Hull, v.c. 61, August, 1897.—C. Waterfall. "Coarse state of the var., but seems correct."—W. R. L.

P. aviculare, Linn. var. *rurivagum* (Jord). Humber foreshore. Hessle, E. Yks., v.c. 61, August, 1898.—C. Waterfall. "Yes."—W. R. L.

P. aviculare, Linn. var. *rurivagum* (Jord). The East Park, Hull, E. Yks., v.c. 61, August, 1898.—C. Waterfall. "A state of *rurivagum*, I think."—W. R. L.

P. aviculare, var? Gravel-walks, Saintfield, co. Down, Sept., 1898.—C. H. Waddell. "Seems best under *rurivagum*."—W. R. L.

P. minus, Huds.? Marshes by Lake Magherasconse, co. Down, Sept. 1, 1898.—C. H. Waddell. "Yes, *P. minus*."—H. and J. Groves.

Rumex maritimus, L.? Nr. Shapwick Ry. Station, Somerset, August, 1898. — H. S. Thompson. "*R. maritimus*, L."—A. B.

R. acutus L. Rugby; from seed, July, 1898. These four fine specimens are all off one large plant grown from the seed of an undoubted specimen of *R. acutus* from Rugby, showing that its frequency may be accounted for by an occasional formation of perfect seeds.—S. T. Dunn.

Salix triandra, L. Hornsea Mere, E. Yorks, v.c. 61, May, 1897, and August, 1898.—C. Waterfall. "Yes, correct."—E. F. L. An addition to the Vice-County.

S. triandra, L. var. *Hoffmanniana*, Sm. Hornsea Mere, E. Yorks, v.c. 61, August, 1898.—C. Waterfall. On the bulk of the specimens Mr. Linton reported:—"*S. triandra* L. f. *discolor*, summer-flowering shoots, male, not *Hoffmanniana*, Sm."; on three sheets (separated in distribution)—"*S. triandra*, L. f. *concolor*, flowers abnormally hairy, as is often the case with summer-flowering shoots; not *S. Hoffmanniana*, Sm."

S. alba, L. Long Lane, nr. Beverley, E. Yorks, v.c. 61, August, 1898.—C. Waterfall. "Yes."—E. F. L.

S. cinerea × *nigricans*. Planted by river at Shapwick, Dorset, and received from Kew Gardens, 14/5/94. —E. F. Linton.

S. nigricans × *phylicifolia*, Hort. Bournemouth, orig. Clova. May and June, 1893. On the *nigricans* side. —E. F. Linton.

Malaxis paludosa, Sw. Glen Fee, Clova. Forfar, v.c. 90, July 30, 1896.—A. Somerville.

Allium vineale, L. Cleeve Lode, nr. Great Malvern, Worcestershire, v.c. 37, July, 1898.—C. Waterfall. Var. *compactum* (Thuill).—E. S. and C. E. S.

A. paradoxum, Don. Binny Craig, Linlithgow, 22/4/80. Coll. A. C. Christie.—A. Bennett.

Ornithogalum nutans, L. Seasend, nr. Spalding, Lincoln, April 27, 1897. Coll. J. Tatum.—D. T. Playfair. "Rightly named. As there is no note as to the surroundings it looks presumably like a native there. The species can usually be easily traced to cultivation, present or past, at its numerous localities in England. It is certainly naturalised and of long duration in N.W. Europe, but can hardly be considered native there."—S. T. Dunn. An addition to v.c. 53.

Lilium Martagon, Linn. Headley, Surrey, July, 1898.—A. J. Crosfield. "Surely not considered a native here. It has been known in the locality for a great many years, and must be considered naturalised, as in many other localities in England. Its undoubtedly native limit falls far short of this country."—S. T. Dunn.

Juncus compressus, Jacq. Damp margin of Groby Pool, Leicester, v.c. 55, 20/7/1898.—A. B. Jackson. "Yes."—W. H. Beeby.

J. compressus, Jacq. ? Salt marsh, Highbridge, Somerset, July, 1898.—H. T. Thompson. "No, *J. Gerardi*, Loisel."—W. H. B.

J. acutiflorus, Ehrh. The Hall, Thorpe-le-Soken, Essex, 26/8/98.—R. S. Standen. "Yes."—W. H. B.

J. conglomeratus, L. Same locality and date.—R. S. Standen. "No, *effusus*."—W. H. B.

J. glaucus, Leers. Same locality and date.—R. S. Standen. "Yes."—W. H. B.

J.———. Same locality and date.—R. S. Standen. "*J. effusus*."—W. H. B.

J. diffusus, Hoppe. Thursley Common, Surrey, Sept. 3, 1898. A. J. Crosfield and C. E. Salmon. "Right."—W. H. B.

J. castaneus, Sm. Side of Whitewater, above Glen Dole, Forfarshire, July 31, 1896.—D. T. Playfair.

Arum italicum, Mill. Moulin Huet, Guernsey, May 23, 1897.—D. T. Playfair.

Potamogeton crassifolius, Fryer (= *coriaceus* × *natans*). Engine drain, Mepal Common, Cambs., v.c. 29, July, 1890. Coll. A. Fryer.—A. Bennett.

P. salicifolius, Wolf. River Wye, near Ross, Herefordshire, 7/96. Coll. Ley and Hanbury.—A. Bennett.

P. acutifolius, L.? Ditches, Magherasconse Lake, co. Down, Sept. 1, 1898.—C. H. Waddell. "*P. pusillus*, L. with broad leaves."—A. B.

P. obtusifolius, M. and K. Pond on Witley Common, Surrey, Sept. 3, 1898.—C. E. Salmon.

P. pusillus, L. var. *Berchtoldi* (Fieber). Pond near Stirling Castle, Stirling, July, 1898.—Col. Stirling and C. H. Waddell. "Not the variety."—A. B.

Zannichellia palustris, L.? Portmore Lough, co. Antrim, August 20, 1898. Coll. J. H. Davies.—C. H. Waddell. "This *seems* to be the var. *repens* of *Z. palustris* = *Z. repens*, Boenninghausen, Prod. Flor. Monast. West. p. 273 (1824), but I have no authentic specimens at hand to make it quite certain. It has been said, concerning *Zannichellia*, that 2, 3, and 4 celled anthers have been found on the same specimen; if this is so it clearly cannot be a specific character or varietal either."—A. B.

Z. polycarpa, Nolte. Brackish Ditches, Victoria Park, Belfast, co. Down, August, 1898.—C. H. Waddell. "Yes."—A. B.

Carex incurva, Lightf. Moist meadow at side of f. w. Loch Bea, Island of Sanday, Orkney, v.c. 111, July 23, 1898.—A. Somerville.

C. curta, Good. form. Upper valley of White-water, Clova, Forfar, v.c. 90, July 31, 1896. Mr. Bennett said of this plant "approaching *Persooni*."—A. Somerville.

C. ovalis, Good var. *bracteata*, Syme. Malvern Link Common, Worcestershire, v.c. 37, June, 1895. — C. Waterfall. "Hardly extreme enough to be called the variety."—A. B.

C. Buxbaumii, Wahl. Lochan, nr. Arisaig, W. Inverness, 2/8/95. Coll. W. F. Miller.—H. T. Mennell.

C. aquatilis, Wahl. Side of White-water, above Glen Dole, Forfarshire, July 31, 1896.—D. T. Playfair.

C. Goodenowii, J. Gay, var. *juncella* (T. M. Fries). Marsh by lake, Hillsborough Park, co. Down, July, 1894.—C. H. Waddell. "Yes."—A. B.

C. rariflora, Sm. Boggy ground above Glen Dole, Forfarshire, July 29, 1896.—D. T. Playfair. Above Craig Maud, Clova, July, 1898. Coll. A. H. Evans.—H. P. Reader.

C. montana, L. Near Clowne, Derbyshire, v.c. 57, June, 1898.—C. Waterfall.

C. vaginata, Tausch. Glen Fee, Forfarshire, July 28, 1896.—D. T. Playfair.

C. pulla, Good. Ben Heasgarnich, Breadalbanes, Mid Perth, v.c. 88, August 4, 1888.—A. Somerville.

C. pulla, Good. Rocks at Lochan na Lairigg, Killin, Perthshire, August 6, 1897.—D. T. Playfair.

Setaria viridis, Beauv. Staines, Middlesex, October, 1898. Coll. E. F. Shepherd.—C. H. Waddell. "Recorded without comment as to nativity. Trimen and Dyer (Fl. Middlesex) regarded it as a probable introduction."—S. T. Dunn.

S. viridis? Waste ground nr. Rugeley, Staffs., 9/98. —H. P. Reader. Yes, *viridis*, new record for v.c. 39.—E. S. and C. E. S.

S. glauca, Beauv. Staines, Middlesex, Oct., 1898. Coll. E. F. Shepherd.—C. H. Waddell. "Right. It is not even naturalised in England."—S. T. Dunn.

Phalaris minor, Retz. Barley alien, Twerton, Bath, 8/9/97. A native of southern Europe, recorded occasionally in England as a grain-sifting introduction. Doubtless frequently passed over as *P. canariensis*, which it closely resembles.—S. T. Dunn.

Anthoxanthum Puellii, Lec. and Lamotte. Side of new road near North Malvern, Worcestershire, v.c. 37, July, 1898.—C. Waterfall. "Rightly named. Can be distinguished from forms of *A. odoratum* with protruded awns, by its divided pales and branched annual stem."—S. T. Dunn.

Agrostis nigra (With.) Nursery Ground, Bridgwater, Somerset, July, 1898. — H. S. Thompson. "*Agrostis alba*, L."—E. F. Linton.

Koehleria cristata, Pers. b. *gracilis* (Boreau.). Ant hills and dry banks (limestone), Scout Scar, Westmoreland, July, 1895.—C. H. Waddell. "*Koehleria cristata*, Pers, but I hardly think var. *gracilis*."—E. F. Linton.

K. cristata, Pers. var. *gracilis?* (but glumes hairy). Gog Magog Hills, Cambs., June, 1898.—J. T. Powell. Yes, glumes of type (i.e., hairy), but panicle as in var. *gracilis*, so intermediate between the two. — E. S. and C. E. S.

K. cristata, Pers. var. *gracilis?* (except that panicle is much lobed). Gog Magog Hills, Cambs, June, 1898. —J. T. Powell. Yes, *gracilis*.—E. S. and C. E. S.

K. cristata, Pers. var. *gracilis?* (1) Glumes right for variety but leaves and panicle hardly so. Gog Magog Hills, Cambs., June, 1898. (2) Glumes and leaves right for *gracilis* but panicle much lobed. Same locality and date. (3) Panicle seems too lobed for *gracilis*, otherwise right. Same locality and date.—J. T. Powell. We should call all these var. *gracilis* (Boreau). —E. S. and C. E. S.

Catabrosa aquatica, Beauv. var. *littoralis*, Kittel. Ardneil Bay, Ayrshire, v.c. 75, 29 July, 1898. Prof. Hackel considers this only a state and not a var. of the plant.—A. Somerville.

Festuca uniglumis, Sol. Sand, St. Helen's Spit, Isle of Wight, May, 1870. Coll. F. Stratton. — E. S. Salmon. Unfortunately we find that a few specimens of *F. ambigua*, Le Gall. from the same locality were mixed with the above and distributed.—E. S. and C. E. S.

Bromus rigidus, Roth. Quenvais, Jersey, May 26, 1897.—D. T. Playfair. "Yes, *Bromus maximus*, Desv., which equals *B. rigidus*, Koch (*non Roth*). The name *B. rigidus*, Roth. for this plant in the ninth edition of the London Cat. is thus apparently an error.—E. S. and C. E. S.

Agropyron pungens, R. and S. Humber foreshore between Hull and Hessle, E. Yorks, v.c. 61, August, 1898.—C. Waterfall. "*Agropyron acutum*, Roem and Schult."—E. F. Linton.—A new record for the Vice-County.

Gymnogramme leptophylla, Desv. Jersey, May, 1898. Coll. F. E. Piquet.—D. T. Playfair.

Ophioglossum vulgatum, L. var. *polyphyllum*, Braun. Swanbister, Orkney, 8/1875. Coll. J. T. Syme.—A. Bennett.

Equisetum sylvaticum, L. ? var. *capillare* (Hoffm.) Woods, Trossachs, Perthshire, July, 1898. — C. H. Waddell. "Yes, *capillare*."—A. B.

E. trachyodon, Braun. Banks of stream, Colin Glen, co. Antrim (Templeton's old locality), Jan., 1898.—C. H. Waddell.

Chara baltica, Bruzel, var. *affinis*, H. and J. Groves. Grand Mare, Guernsey, May 25, 1897.—D. T. Playfair. "Yes."—H. and J. Groves.

C. vulgaris, L. var. *longibracteata*, Kuetz. Ponds by the sea, Victoria Park, Belfast, co. Down, August, 1898. —C. H. Waddell. "Yes."—H. and J. G.

Nitella ? No. 1. Pool by roadside, Saintfield, co. Down, June, 1894. — C. H. Waddell. "*N. opaca*, Agardh."—H. and J. G.

N.——— ? No. 2. Pond 3ft. deep, Rowallane, Saintfield, co. Down, Jan. 1899.—C. H. Waddell. "We are unable to name this, as it is sterile, but it looks rather more like *N. flexilis* than *N. opaca*."—H. and J. G.

SUPPLEMENT.

Papaver dubium, Linn. Between Brough and Ellerker, E. Yorks, v.c. 61, August, 1897.—C. Waterfall. *a. Lamottei* (Bor.). New County record.—E. S. and C. E. S.

Cratægus oxyacantha (var.) Brean Down, N. Somerset, v.c. 6, May 31, '96.—E. S. Gregory. Var. *monogyna* (Jacq.).—E. S. and C. E. S.

Euphrasia officinalis, L. f. *paludosa*, Towns ? Roadside, Saintfield, co. Down, Sept. 1, 1896 (Ref. No. 1).—C. H. Waddell. "*E. brevipila*, Burnat and Gremli."—R. von Wettstein.

E. officinalis form ? Marshy shore of lake, Aughnadarragh, co. Down, August, 1896 (Ref. No. 2). — C. H. Waddell. "*E. brevipila*, Burnat and Gremli." — R. von Wettstein.

E. officinalis, L. var. *nemorosa*, H. Mart. Ashridge Wood, nr. Compton, Berks, v.c. 22, 27/8/1896 (Ref. No. 3).—A. B. Jackson. "*E. nemorosa*, Pers." — R. von Wettstein.

Jancus diffusus, Hoppe. Thorpe-le-Soken, Essex, 16/8/97.—R. S. Standen. "I should name this *J. effusus*." W. H. Beeby.

Carex nr. *pseudo-bryzoides*. Open space in plantation nr. Tringmore Gulleries, Brigg, Lincolnshire N., June, 1897.—C. Waterfall. In the opinion of Mr. Arthur Bennett and Mr. C. B. Clarke this form cannot be separated from *C. arenaria*, Linn. The original description of *C. pseudo-brizoides* appears in Schur. Enum. Pl. Transsil. p. 700 (1866) (where Schur proposes the name in lieu of his own *C. psammophila*); the reference given in the Index Kewensis is Chavaud (for Clavaud), in Bull. Soc. Pharm. Bordeaux XIII., p. 156 (1873).

Agrostis vulgaris, With, var. *pumila* (L.). Peaty mountain side, Castlewillan, co. Down, June, 1897.—C. H. Waddell. "Is *Aira caryophyllea*, L. I have only seen this form from the drier parts of the Hunts peat moors, and with its *spreading* stems and dwarf habit might be distinguished as var. *diffusa*."—E. F. Linton.

Deschampsia discolor, R. and S. Thorpe Hamlet, Norfolk, June 24, 1897.—H. D. Geldart. "*D. flexuosa* Trin."—E. F. Linton.

Brachypodium sylvaticum, R. and S. var. Railway Embankment near Leek Wootton, Warwick, v.c. 38, 13 6, 97. —A. B. Jackson and H. Bromwich. "*Brachypodium pinnatum* var. *pubescens*, Syme, is, I think, the right name for this plant. If a root were sent me I would give it a trial. I once suggested it was a hybrid between the two species."—E. F. Linton.

Agropyron pungens, R. and S. Humber foreshore, nr. Hessle, E. Yorks, v.c. 61, August 11, 1897.—C. Waterfall. "*Agropyron pungens*, Roem. and Schult. var. *pycnanthum* (Gr. and Godr.)."—E. F. Linton. New record for the Vice-County, 61.

TREASURER'S BALANCE SHEET, 1898.

Receipts.

	£	s.	d.
Balance from 1897	5	16	5
Subscriptions, 1898	7	0	0
	£12	16	5

Expenditure.

	£	s.	d.	£	s.	d.
Printing—						
A. J. Holmes, 14th Report	4	7	6			
W. Sessions, Desiderata List	0	6	6			
				4	14	0
Distributor's Expenses				1	1	9
Secretary's "				0	7	0
Treasurer's "				0	4	9
Balance				6	8	11
				£12	16	5

SUBSCRIPTIONS, 1898.

	£	s.	d.
Bostock, E. D.	0	15	0
Cotton, Mrs.	0	5	0
Crossfield, A. J.	0	5	0
Ewing, P.	0	5	0
Geldart, H. D.	0	5	0
Gregory, Mrs. E. S.	0	5	0
Griffith, J. E.	0	5	0
Goss, H.	0	15	0
Higgins, Miss D. M.	0	5	0
Knoop, H. L.	0	5	0
Lett, Rev. H. W.	0	10	0
Mennell, H. T.	0	5	0
Nicolson, D.	0	10	0
Powell, J. T.	0	5	0
Praeger, R. L.	0	5	0
Reader, Rev. H. P.	0	5	0
Somerville, A.	0	5	0
Standen, R. S.	0	5	0
Thompson, H. S.	0	5	0
Waddell, Rev. C. H.	0	5	0
Waterfall, C.	0	5	0
Woodhead, T. W....	0	5	0
	£7	0	0

THE

SIXTEENTH ANNUAL REPORT

OF THE

WATSON
Botanical Exchange Club,

1899-1900.

REFEREES:

J. G. BAKER, F.R.S., F.L.S., 3, Cumberland, Road, Kew Gardens, Surrey.

ARTHUR BENNETT, F.L.S., High Street, Croydon.

REV. W. MOYLE ROGERS, F.L.S., Chetnole, Grosvenor Road, Bournemouth West.

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HON. SECRETARY:

HAROLD S. THOMPSON, 30, Waterloo Street, Birmingham.

"LABOR OMNIA VINCIT."

BRITISH MUSEUM

BIRMINGHAM:
Morland & Henson, Printers, Edmund Street.
1900.

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1900.

THE WATSON

BOTANICAL EXCHANGE CLUB.

REPORT FOR 1899-1900.

It is satisfactory to be able to record an increase in the number and an improvement in quality of the plants contributed. The total number sent in (by twenty members) was 1,682, and the plants were, with few exceptions, carefully selected and dried.

The appearance amongst the material contributed of two plants new to science, a *Rubus* and a *Potamogeton*, is noted in the present Report at p. 9 and p. 21.

It would add greatly to the value of alien species if the collectors of these gave (on one label) information as to the degree of naturalization, probable means of introduction, &c.

In the case of *Callitriche* and *Ceratophyllum* it must be remembered that it is necessary to collect fruiting specimens.

The thanks of the Club are due to Mr. Arthur Bennett, Rev. W. Moyle Rogers, Rev. E. F. Linton, Rev. W. R. Linton, Rev. E. S. Marshall, Mr. G. Claridge Druce, Mr. S. T. Dunn, Mr. F. Townsend, and Messrs. H. and J. Groves, for their critical assistance.

The Members are under great indebtedness to Mr. T. A. Cotton, who, after faithfully serving the Club as Hon. Secretary for about ten years, has felt obliged to be relieved in the work, and Mr. Harold S. Thompson has been appointed in his place.

The following are the names of the contributing members:—

Mr. A. Bennett	59	Dr. D. T. Playfair ...	74
Mrs. Cotton	9	Mr. J. T. Powell ...	60
Mr. F. C. Crawford ...	27	Rev. H. P. Reader ...	51
Mr. A. J. Crosfield ...	32	Mr. C. E. Salmon ...	127
Mr. G. C. Druce ...	93	Mr. A. Somerville ...	25
Mr. S. T. Dunn	5	Mr. H. S. Thompson ...	5
Mr. H. D. Geldart ...	21	Rev. C. H. Waddell ...	36
Miss D. M. Higgins ...	20	Mr. C. Waterfall ...	494
Mr. A. B. Jackson ...	28	Major A. H. Wolley Dod	53
Rev. H. W. Lett ...	45		
Rev. E. F. Linton ...	121		1,682
Rev. E. S. Marshall ...	297		

E. S. & C. E. SALMON,

Distributors for the year 1899-1900.

Ranunculus scoticus, Marshall. Sraheens Lough, Achill Island, W. Mayo. 23/6/1899.—E. S. Marshall.

Papaver dubium, Linn. var. *Lecoqii* (Lamotte). Field near Amberley Mount, Sussex, W. Sap yellow. Unrecorded for this vice-county (13) in Top Bot. and Arnold's Sussex Flora. —C. E. Salmon.

Arabis ciliata, R. Br. var. *hispida*, Syme? Orig. Cong, E. Mayo, 1894. Garden, Milford, 6/7/1899. Ref. No. 2291. —E. S. Marshall.

Cardamine amara, L. An abnormally stiff form. Bank of R. Cock, Stutton, nr. Tadcaster, W. Yorks, v.c. 64, June, 1899, —C. Waterfall. We see no reason for the note added.—E.S. and C.E.S.

Erophila virescens, Jordan. Milford, Surrey. 24/3/1894. Ref. No. 1224.—E. S. Marshall.

E. Brachy carpa, Jordan. Reigate Heath, Surrey. April 15, 1899.—C. E. Salmon.

Sisymbrium officinale, Scop. var. *leiocarpum*, D.C. Nr. Chilworth Station, Surrey. Aug. 19, 1899.—C. E. Salmon.

Brassica Rapa, L. var. *Briggsii*, H. C. Watson? Ref. No. 1443. S. shore of Lough Mask, East Mayo. Native. Depauperate. 11/7/1895.—E. S. Marshall.

Thlaspi perfoliatum, L. Stony ground, nr. Charlbury, Oxon. April, 1884.—G. C. Druce.

Viola Silvestris, Reich. *f. leucantha*, G. Beck. Margery Wood, Reigate Hill, Surrey, April 23, 1899. Fide W. H. Beeby—C. E. Salmon.

V. Curtisii, Forster. Pembray Burrows, Carmarthen, v.c. 44. 28/8/1899.—E. S. Marshall.

Polygala depressa? Pepperstock, nr. Luton, Beds. June 16, 1899.—D. M. Higgins. *P. vulgaris*, L. E.S. and C.E.S.

Cerastium arcticum, Lange. Coinnemheall, Sutherland W. July 31, 1899.—C. E. Salmon.

Stellaria media, Cyr. var. *major*, Koch. (1) Grassy lane among shrubs, nr. Church Fenton, W. Yorks, v.c. 64. June,

1899. (2) Arable land, east of Cottingham, nr. Beverley, E. Yorks. v.c. 61. May, 1899.—C. Waterfall. So I should call it, both gatherings. E. F. Linton.

S. media, Cyr. var. *major*, Koch. Marsh, Wiggie, Redhill, Surrey June 14, 1899. Stamens about 10.—C. E. Salmon. Robust, var. *major*: tubercles large but blunt. W. R. Linton.

Arenaria gothica, Fr. Ribblehead, Yorkshire. June 10, 1899.—C. Cotton.

Tilia cordata, Mill. Tree in pasture land, Etton, nr. Beverley, E. Yorks. v.c. 61. Sep., 1899.—C. Waterfall. No, *T. Vulgaris*, Hayne. E.S. and C.E.S.

Erodium cicutarium, L'Hérit. (1) Waste ground, gravel pit, Brough, E. Yorks, v.c. 61. June, 1897. (2) Earthy bank on shore of salt marsh, Stanpit, Christchurch, S. Hants. v.c. 11. July, 1899.—C. Waterfall. Both a. *vulgatum*, Syme, E.S. and C.E.S.

E. cicutarium, L'Hérit. Bedford Road, Luton, Beds. June 16, 1899.—D. M. Higgins. var. *vulgatum*, Syme. E.S. and C.E.S.

E. cicutarium, L'Hérit. Sandy ground on edge of pool, Cliff Wood, nr. North Newbold, E. Yorks. v.c. 61. June, 1899.—C. Waterfall. Is var. *chaerophyllum* (Cav). E.S. and C.E.S.

E. cicutarium, L'Hérit, var. *chærophyllum* (Cav.) Reigate Heath, Surrey. May 15, 1899.—C. E. Salmon.

Ononis repens, Linn. (1) Boulder clay cliffs, nr. Danes Dyke, Bridlington, E. Yorks. v.c. 61. June, 1899. (2) Sea sands, Spurn Head, E. Yorks. v.c. 61. June, 1899.—C. Waterfall. All a. *inermis*, Lange. E.S. and C.E.S.

O. repens, Linn. Barton, Beds. July 31, 1899.—D. M. Higgins. a. *inermis*, Lange. Fruiting examples of this species are desirable.—E.S. and C.E.S.

O. repens, L., var. *horrida*, Lange. (1) Sand hills, nr. Caistor, E. Norfolk. 29/7/1899. (2) Yarmouth, North Denes, E. Norfolk. 29/7/1899.—J. & A. Bennett.

Trifolium striatum, L. var. *erectum*, Leight. Gravel pit, Ripple, Worcestershire. v.c. 37. July, 1898.—C. Waterfall.

Anthyllis Vulneraria, L. v. *coccinea*, Linn. Newquay, Cornwall. Aug. 11, 1899.—A. J. Crosfield.

Lotus corniculatus, Linn. var. *villosus*, Ser. (1) Boulder clay cliffs, nr. Dane's Dyke, Bridlington, E. Yorks. v.c. 61. June, 1899. (2) Sea sands, Spurn Head, E. Yorks, v.c. 61. June, 1899.—C. Waterfall. In both gatherings the type was mixed with the variety; when distributing the specimens a note was inserted with the former.—E.S. and C.E.S.

Lathyrus tuberosus, L. Cornfields, Fyfield, Essex. July 23, 1892.—C. E. Salmon.

Rubus fissus, Lindl. (1) Coppice Woods, Kentmere, Westmorland. Aug., 1899. (2) Marshy Wood, Cunswick, Westmorland. Aug., 1899.— C. H. Waddell. "Yes." W.M.R.

R. plicatus, W. & N. (Fide W. M. Rogers). Woods by the Lake, Ardlui, Dumbartonshire. July, 1898.—C. H. Waddell.

R. nitidus, W. & N. Brook side, West Moors, Dorset. 6/7/99.—J. T. Powell. "Yes." W.M.R.

R. opacus, Focke. Brook side, West Moors, Dorset. 6/7/99.—J. T. Powell. "Yes." W.M.R.

R. affinis, W. & N. Sandy ground, Middle Chine, Bournemouth, S. Hants. v.c. 11. July, 1899.—C. Waterfall. "Yes, typical *R. affinis*, Wh. & N." W.M.R.

R. affinis, W. & N. Middle Chine, Bournemouth, S. Hants. 9/8/99.—J. T. Powell. "Yes." W.M.R.

R. Bakeri, F. A. Lees. Cairnbaan, Cantire. Ref. No. 9. Aug. 7, 1899.—C. E. Salmon. "Must go, I think, to *R Bakeri*, though that when typical has a very compound floriferous panicle." W.M.R.

R. nemoralis, P. J. Muell. Road side, Parkstone, Dorset. July and Sept., 1899.—J. T. Powell. "Yes." W.M.R.

R. Scheutzii, Lindeb. (Fide W. M. Rogers). Rough ground on Castle Hill, Stirling. July 25, 1898. See Journal of Botany, 1897, pp. 44, 45.—C. H. Waddell.

R. villicaulis, sp. coll. var. *R. Selmeri*, Lindeb. Growing on sand, Alum Chine, Bournemouth, S. Hants. v.c. 11. July, 1899.—C. Waterfall, "Yes, *R. Selmeri*, Lindeb. which we are placing under *R. villicaulis*, Koehl. as subsp. or var." W.M.R.

R. Selmeri (Lindeb.) Ref. No. 1738. Near Cong, W. Galway. 10/6/1896. (Teste Rogers).—E. S. Marshall.

R. Selmeri (Lindeb.) By Branksome Chine, Dorset. 30/6/99.—J. T. Powell. "Yes." W.M.R.

R. macrophyllus, Wh. & N. var. *Schlechtendalii* (Whe.) Ref. No. 1704. Wexford. 18/6/1896. (Fide Rogers).—E. S. Marshall.

R. iricus, Rogers. (Type specimen). Ref. No. 1730. Cong, E. Mayo. 11/6/1896.—E. S. Marshall.

R. myricæ, Focke. var. *hesperius*, Rogers. (Confirmed by Rogers). (1) Ref. No. 1718. Clonbur, W. Galway. 12/6/1896. (2) Ref. No. 1732. Cong, E. Mayo. 11/6/1896.—E. S. Marshall.

R. mucronatus, Blox. Middle Chine, Bournemouth, S. Hants. 17/7/99.—J. T. Powell. "These specimens admirably represent the form of *R. mucronatus*, Blox. prevailing in Dorset and S. Hants, and extending into S. Wilts. I am now proposing to describe it as a new var. under the name *nudicaulis*." W.M.R.

R. ———. Briclan, P. of Aghaderg, Co. Down. July 17, 1899. Ref. No. 1.—H. W. Lett. "I think best placed as a hairy-stemmed form or var. of *R. Gelertii*, Frider, though going off from that species towards *R. micans*, Gren. and Godr.; and this remark applies to Canon Lett's No. 5, 1898 (Lisnagade, Co. Down, July 30), as to which I wrote a year ago. 'I suppose a var. of *Rubus micans*, Gren. and Godr.' The Lisnagade plant however seems one stage nearer to *R. micans* than does the Briclan one (No. 1, 1899). It may be convenient to distinguish this common Co. Down form by the *provisional* name 'var. *Lettii*.'" W.M.R.

R. Borreri, Bell Salter. (teste Rogers). (Ref. No. 1695). In shade, nr. Wexford. 18/6/1896.—E. S. Marshall.

R. ———. Wood, nr. Alvechurch, Worcester, Aug. 5, 1899.—H. S. Thompson. "Most probably, I think, a form of my *R. Leyanus*, which I am placing as a var. under *R. Drejeri*, G. Jensen. The deeply cut compound serratures of the leaflets however would be quite anomalous for that." W.M.R.

R. radula, var. *anglicanus*, Rogers. Side of Poole Road, Parkstone, Dorset. 4/7/99.—J. T. Powell. "Yes." W.M.R.

R. Bloxamii, Lees. Alum Chine, Bournemouth, S. Hants. 2/8/99.—J. T. Powell. "Yes." W.M.R.

R. Bloxamii, Lees. Top of small Chine, Alum Chine, Bournemouth, S. Hants. v.c. 11. July, 1899.—C. Waterfall. "Very characteristic." W.M.R.

R. scaber, Wh. & N. (teste Rogers). (1) Ref. No. 1733. Nr. Cong, W. Galway. 10/6/1896. (2) Ref. No. 1714. Clonbur, W. Galway. 12/6/1896.—E. S. Marshall.

R. ——— (B). Nr. Halesowen, Worcester. July, 1899.—H. S. Thompson. "Probably *R. fuscus*, Wh. & N. Material rather poor and scanty for satisfactory determination." W.M.R.

R. ——— (A). Nr. Halesowen, Worcester. July, 1899.—H. S. Thompsom. *R. rosaceus*, Wh. & N. var. *infecundus*, Rogers. W.M.R.

R. ———. Aghaderg Glebe, Co. Down. July 19, 1899. Ref. Nos. 2 and 3.—H. W. Lett." A very greyish form of my *R. dasyphyllus* (*R. pallidus*, Bab. non. Wh. & N.)" W.M.R.

R. Durotrigum, R. P. Murr. Hedgerow, nr. Spetisbury, Dorset. 16/8/1899.—J. T. Powell. "Yes." W.M.R.

R. Balfourianus, Blox. (confirmed by Rogers). Ref. No. 1731. Nr. Cong, E. Mayo. 11/6/1896. Stamens fall short of styles.– E. S. Marshall.

Fragaria elatior, Ehrh. Garden escape; bank by old garden, Saintfield, Co. Down. July, 1899.—C. H. Waddell. I think this correctly named, although I should have liked to have seen the flowers. Syme in E.B. iii, p. 157, says *F. elatior* is often destitute of runners, but in these specimens they are freely produced. There are older names, for instance, *F. muricata* of Miller's Gardener's Dictionary of 1768 and *F. moschata* Duchesne Hist. Nat. Fraise, but I am not quite convinced that the above represents the Haut Bois Strawberry. G. Claridge Druce.

Potentilla norvegica, Linn. Waste ground beyond the Docks, W. of Hull, E. Yorks, v.c. 61, where Dock sweepings are loaded into wagons and shot down here. Oct. 1899.—C. Waterfall. Correct. A garden plant which frequently appears in waste places where garden rubbish is thrown. S. T. Dunn.

P. procumbens. Nr. Armitage, Staffs. 1899.—H. P. Reader. Excellent *procumbens;* well illustrating its range of variation. E. S. Marshall.

Alchemilla vulgaris, Linn. var. *pratensis*, Schmidt. (1) Lane side nr. North Newbald, E. Yorks. v.c. 61. June, 1899. (2) Pasture land nr. Cottingham, E. Yorks. v.c. 61. May, 1899.—C. Waterfall. No, both var. *filicaulis*, Buser. E.S. and C.E.S.

A. vulgaris, Linn. var. *filicaulis*, Buser. G.C. Railway Embankment, nr. Renishaw, Derbyshire. v.c. 57. July, 1899. Fide W. R. Linton.—C. Waterfall.

Agrimonia odorata, Mill. Fairy Isles, Loch Sween, Cantire. Aug. 8, 1899.—C. E. Salmon. Additional to v.c. 101.

Rosa glauca, v. *coriifolia* (Fries). Hedges, Kentmere, Westmoreland. Aug. 14, 1899. Fide W. Barclay.—C. H. Waddell. "Beautiful specimens of a form of *R. coriifolia* with unusually glaucous leaves and somewhat compound serrations." W.M.R.

Pyrus fennica, Syme? Gorge off Glen Catacol, Arran, v.c. 100. Aug. 20, 1895.—A. Somerville.

P. Scandica, Syme? Glen Easan Biorach, Loch Ranza, Arran, v.c. 100, July 2, 1895.—A. Somerville.

Saxifraga umbrosa, Linn. Damp shaded rocks, Ballynahinch, Co. Galway, Ireland, May 15, 1899.—D. T. Playfair.—var. *punctata*, Don.—E. S. and C. E. S.

S. umbrosa, L. var. *punctata*, Don. Near Mallaranny, W. Mayo, 26/6/1899.—E. S. Marshall.

S. Sternbergii, Willd. Black Head, Bally-Vaughan, Co. Clare, Ireland, May 10, 1899.—D. T. Playfair.

Sedum album, L. v. *teretifolium*, (Haw). Merstham, Surrey, July 3, 1899.—A. J. Crosfield.

S. rupestre, Linn. Dry bank on roadside, Wallis down, S. Hants, v.c. 11, July, 1899.—C. Waterfall. No, *S. reflexum*, L.—E. S. and C. E. S.

Callitriche Verna, L. (1). Wet ground, near Renishaw, Derbyshire, v.c. 57, July, 1899. (2). Swiftly flowing stream of R. Hull, Wansford, near Driffield, E. Yorks, v.c. 61, June, 1899. (3). Dyke, nr. Sand-le-mere, Withernsea, E. Yorks, v.c. 61, May, 1899.—C. Waterfall. All worthless in absence of fruit.—E. S. & C. E. S.

C. hamulata, Kuetz. Dyke, Spring Head lane, Hull, E. Yorks, v.c. 61, Nov. 1899.—C. Waterfall. We should like to see this plant again, with fruit.—E. S. & C. E. S.

Epilobium palustre × *obscurum*. (*E. lingulatum*, Baker). Flegg Burgh Fen, East Norfolk, 28/7/99.—J. and A. Bennett. These are not *obscurum* × *palustre* (E. *lingulatum*, Baker !), but *palustre* × *parviflorum* ; much nearer *palustre* in habit and leaves, but approaching *parviflorum* in their clothing and inflorescence. No trace of *obscurum* !—E. S. Marshall.

E. obscurum × *parviflorum*. Mati's Lane, Cheshire, July 30, 1899.—A. H. Wolley Dod. Correct. A very good intermediate.—E. S. M.

E. hirsutum × *parviflorum*. Near Witley, Surrey, 4/7/1898. Ref. No. 2128.—E. S. Marshall.

E.—Stony embankment at Rudyard Ry. Stn., Staffs, N. Sept. 1899.—H. S. Thompson. *E. montanum* L. (forma aprica).—E. S. Marshall.

Apium nodiflorum, Reichb. fil. var. *ocreatum*, Bab. In Springs at small peat bog, North Newbald, E. Yorks, v.c. 61, Sep., 1899, Fide E. F. Linton.—C. Waterfall.

Lonicera Xylosteum, L. Amberley, Sussex, June 30, 1899.—A. J. Crosfield. In the present instance, as well as in a few other British localities, this species is said to have the appearance of being indigenous. But as its natural distributors, the birds, are much more likely to have carried the seeds from some of its numerous horticultural stations than from any of the few " wild " ones, the species can hardly, with safety, be received as British. It is not obviously native in N. France, Belgium or Holland.—S. T. Dunn.

Valeriana Mikanii, Syme. Dry copse on the chalk downs, nr. Amberley, Sussex, W., June 30, 1899. Confirmed by W. H. Beeby.—C. E. Salmon.

Ambrosia artemisiæfolia, L. Railway Embankment nr. Box, Wilts, Sep. 1899.—S. T. Dunn.

Matricaria maritima, Linn. Stroma, Caithness, on shelves of almost perpendicular rocks overhanging the sea. July, 1899. Coll. A. M. Geldart. Mr. Bennett says "I suppose these specimens may be referred to *M. Maritima*, tho' I admit I feel some doubt. Our plants want comparing with Linné's types (if existent), and with a series of Scandinavian specimens."—H. D. Geldart.

Cineraria maritima, Linn. Rocky ground on limestone, below Daddy Hole Plain, nr. Torquay, S. Devon, v.c. 3, Aug. 1899. I believe this is the French plant. It occurs on the coast of Devonshire, which is opposite to that of Normandy, and the seeds being provided with pappus could readily be blown there by the wind, I should think. It grows in some quantity on the sandy, rather marly soil that covers the limestone rock. It may possibly be a garden escape, but, I should not think very likely.—There is too much of it.—C. Waterfall. *Senecio Cineraria.* (=*Cineraria maritima*, L.) The reasons mentioned above do not appear sufficient for including this species, which is correctly named, as a native of Britain. It does not occur in N. France at all, so that the position of the coast of Normandy, with regard to that of Devon, does not bear upon the question. It has, for a long time been a favorite garden plant, and in this locality has doubtless escaped and become well established.—S. T. Dunn.

Hieracium No. 1. Rocks by stream, Park beck, Kentmere, Westmorland, Aug. 1899.—C. H. Waddell.—A regular mixture:—(1). *H. boreale*, Fr.—small state. (2). *H. vulgatum*, Fr. (single-headed). (3) and (4), quite past flowering; not determinable.—E. S. Marshall.

H. No. 2.———On limestone, quarry, Kendal, Westmorland, Sep. 1899.—C. H. Waddell. Form (or state) of *H. vulgatum*, Fr. In bad condition.—E. S. M.

H. scoticum.—F. J. Hanbury. (Teste F. J. H.). Nr. Betty Hill, W. Sutherland, 21/7/1897.—E. S. Marshall.

H. murorum, L. Tops of park wall, nr. Gilford, Gilford Demesne, Co. Down, June, 21, 1899.—H. W. Lett. The Rev. W. R. Linton, to whom specimens were sent, reported on some

" Agrees very closely with var. *pellucidum*, and I think best placed under that," : on others, " Agrees very closely with var. *pulcherrimum*, under which I should be disposed to place it."

H. strictum, Fr. (Teste Hanbury). (1). Ref. No. 2048, Altnaharra, W. Sutherland, 4/8/1897. (2). Ref. No. 2013, Dunphail, Elgin, 12/8/1897.—E. S. Marshall.

H. umbellatum, L. (small state or var.), Frequent about Bethania and Aberarth, Cardigan, v.c. 46. Ref. No. 2262, 16/8/1899.—E. S. Marshall.

Taraxacum erythrospermum. Sandy ground, Hawkesyard, Staffs., 6/99.—H. P. Reader. Seems to be *lævigatum*, D.C., as the specimens do not possess the bright red fruits of *erythrospermum*, whilst showing the appendiculate inner phyllaries not found in *palustre*.—E. S. & C. E. S.

T. officinale, Web. var. *erythrospermum*, (Andrz). Sandy roadside, nr. Hotham, E. Yorks, v.c. 61, June, 1889.—C. Waterfall. Yes.—E. S. & C. E. S.

T. officinale, Web. var. *palustre*, (D.C.) ?—Margins of a turlough, nr. Bally Vaughan, Co. Clare, Ireland, May 11, 1899. I was informed that the ground on which the plants were growing had been submerged all the winter and early spring months, the water having only subsided from the banks two or three weeks before my visit.—D. T. Playfair. Yes, good *palustre*, (D.C.), the fact of the plant being under water the whole winter, may account for the abnormally entire leaves of the specimens.—E. S. & C. E. S.

Sonchus palustris, Linn. Grown in wild flower garden, East Park, Hull, Aug. 1899. This plant was got by the root by me when it was a seedling 3 years ago at Brough haven, on the Humber foreshore, where the foreign corn is brought in to be winnowed and stored in a corn warehouse. The seeds will have escaped and have sown themselves there.—C. Waterfall. Correctly named. A mysterious record, which necessitates the supposition that the seed was introduced in the foreign corn (though the species nowhere occurs as a cornfield weed), that it was carried by the wind from one of its distant stations or purposely sown.—S. T. Dunn.

Arctostaphylos alpina, Spreng. An Teallach.—W. Ross, July, 1892.—G. C. Druce.

Erythræa Capitata, Willd. var. *sphærocephala*, Towns. Dry downs, Durleston Head, nr. Swanage, Dorset, v.c. 9. Fide E. F. Linton, July, 1899.—C. Waterfall.

Linaria repens × *vulgaris*. Chalk rubble, nr. Oxford, July 1894.—G. C. Druce.

Euphrasia brevipila, Burnat and Gremli. (1). Ref. No. 2064, Garmouth, Elgin, 24/8/1898. (2). Ref. No. 2083, Kingussie, E. Inverness, 26/7/1898. (3). Ref. No. 2087, Nairn, N.B., 27/7/1898. (4). Ref. No. 2068, Dwarf form, Nr. Kingston, Elgin, 24/8/1898. (5). Ref. No. 2297. Nr. Newport, W. Mayo, 22/6/1899.—E. S. Marshall.

E. borealis, Towns. Ref. No. 2078, Fort George, E. Inverness, 10/8/1898.—E. S. Marshall.

E. gracilis, Fr. Ref. No. 2063. Dava, Elgin, 22/8/1898. E. S. Marshall.

E. Scotica, Wettst. (1). Ref. No. 1860. Nr. Betty Hill, W. Sutherland, 20/7/1897. (Teste Wettstein). (2). Ref. No. 2072. Glenmore Forest, E. Inverness, 8/8/1898.—E. S. Marshall.

E. curta, Fr. Ref. No. 2073. Glenmore Forest, E. Inverness, 8/8/1898. —E. S. Marshall.

E. curta, Fr. var. *glabrescens*, Wettst. (1). Ref. No. 1838, Nr. Tain, E. Ross, 11/8/1897. (Teste Wettstein). (2). Ref. No. 2069, Aviemore, E. Inverness, 6/8/1898.—E. S. Marshall.

E. latifolia, Pursh. (Teste Wettstein). Ref. No. 1850, Melvich, W. Sutherland, 15/7/1897.—E. S. Marshall.

E. foulaensis, Towns. Ref. No. 2079. Findhorn Bay, Elgin, 11/8/1898.— E. S. Marshall.

Bartsia Odontites, Huds. Barton, Beds., Sep. 1899.—D. M. Higgins. These specimens illustrate the view I have been more and more inclined to hold, that (*a*) *verna* and (*b*) *serotina* are mere states, dependent for the length of the bracts on soil, shade, moisture, etc., or possibly on the host plant in part. In this gathering there is some variation in both directions, and specimens might be picked out as representing either state. It is best named as labelled.—E. F. Linton.

Melampyrum pratense, L. var. *hians*, Druce. Nr. Mallaranny, W. Mayo, 21/6/1899, Fls. golden.—E. S. Marshall.

Rhinanthus major, Ehrh. Cult. field, Inchnadamph, Sutherland, W., Aug. 1, 1899.—C. E. Salmon. New to v.c. 108.

Mentha rotundifolia, Huds. Nr. Aberayron, Cardigan, v.c. 46. 26/8/1899. Ref. No. 2274.—E. S. Marshall. A form of *rotundifolia*, not *Bauhini*.—W. R. Linton.

M. alopecuroides, Hull. (fide A. Bennett). In cottage garden, Skipness, Kintyre, v.c. 101, Aug. 27, 1899.—A. Somerville. This is interesting as bearing out the observation that the plant is used instead of *M. viridis* by Scotch cottagers.—S. T. Dunn.

M. piperita, Huds., vars. *officinalis*, Hull, and *vulgaris*, Sole. Growing (with *M. rubra*, Sm.) by a stream, Friday Street, Leith Hill, Surrey, Sep. 30, 1899. (Confirmed by W. R. Linton.)—C. E. Salmon.

M. sativa, Linn, var. *rivalis*, Lond. Cat. By River Wey, above Bower's Mill, Surrey, Sep. 2, 1899.—C. E. Salmon. Yes.—W. R. Linton.

M. sativa, Linn, var. *paludosa*, (Sole). Damp ground on downs nr. Totlands, Isle-of-Wight, v.c. 10, July 1899.—Fide W. R. Linton.—C. Waterfall.

M. sativa, Linn. Bank of R. Hull, nr. Hull Bridge, Beverley, E. Yorks, v.c. 61, Aug. 1899.—C. Waterfall. var. *paludosa*, Sole.—W. R. L.

M. sativa. Linn. Ditch bank, Arram Carrs, Beverley, E. Yorks, v.c. 61, Aug. 1899.—C. Waterfall. *arvensis*, var. I can't say which, perhaps *prœcox* ?—W. R. L.

M. arvensis, L. Arable land, bank of R. Hull, nr. Hull Bridge, Beverley, E. Yorks, v.c. 61. Aug. 1899.—C. Waterfall. Yes, the common form of arable land.—W. R. Linton.

Galeopsis Ladanum, Linn. Barton, Bedfordshire, Sep. 4, 1899.—D. M. Higgins. *G. angustifolia*, Ehrh.—E. S. & C. E. S.

Leonurus Cardiaca, L. Whitecroft, W. Gloster. Escaped. 30/8/1899.—E. S. Marshall. The contributor does not mention whether it is still in cultivation in the neighbourhood. Most of its English stations are actually on the walls and hedges surrounding gardens. Further southward in Europe, it occurs in less obvious connection with horticulture and spreads along roadsides and over waste ground more after the manner of goutweed with us, but nowhere does it appear to be independent of human influence.—S. T. Dunn.

Plantago maritima, L. var. *minor*. H. and A. Stroma, Caithness, July 20, 1899.—Coll. A. M. Geldart. Fide A. Bennett, who refers the authority to Hook. Brit. Fl. ed. 1, 1830, instead of " H. and A."—H. D. Geldart.

Amaranthus retroflexus, Linn. Waste ground W. of the Docks towards Hessle, Hull, E. Yorks, v.c. 61, Oct, 1899. Identified at Kew,—C. Waterfall.

Chenopodium album, Linn. Waste ground at the west of the Docks towards Hessle, Hull, E. Yorks, v.c. 61, Oct., 1899.—C. Waterfall. I think there are more forms than one represented in the specimens from Hessle, on the whole the majority are nearer var. *paganum* than to var. *viride*, if one takes the E.B. as a standard. I should not be surprised if Herr Freyn would name some of them var. *glomerulosum*, Reichb., and I would advise you to send him a specimen; the one I have marked with a cross [returned to Mr. Waterfall. E. S. and C. E. S.] resembles very closely an Oxford specimen so named by him, but Mr. Waterfall's specimen is not so far advanced. Young specimens are usually unsatisfactory.—G. Claridge Druce.

C. opulifolium, Schrad. Waste ground W. of the Docks towards Hessle, Hull, E. Yorks, v.c. 61. Identified at Kew. Oct., 1899.—C. Waterfall.

C. urbicum, Linn. Sandy ground, Alum Chine, Bournemouch, S. Hants, v.c. 11, July, 1899.—C. Waterfall. This is clearly an error; the plant is an immature specimen of *Atriplex hastata*, aggregate; similar specimens are the *C. urbicum* of "Beesley Oxford" in Topographical Botany.—G. C. Druce.

C. rubrum, L. var. *pseudo-botryoides*, H. C. Watson, Pembrey Burrows, Carmarthen, v.c. 44, 28/8/1899.—E. S. Marshall.

Atriplex patula, Linn. Salt marsh, Hengistbury Head, South Hants, v.c. 11, July, 1899.—C. Waterfall, A small maritime form.—A. B.

Suæda maritima, Dum. var. *procumbens*, Syme. (1) Salt marsh, nr. Hamworthy Station, Dorset, v.c. 9 July, 1899. (2) Salt marsh, shore of Poole Harbour, Dorset, v.c. 9 July, 1899. —C. Waterfall. Yes, both belong to the variety.—E. S. and C. E. S.

S. maritima, Dum. var. *procumbens*, Syme. Sandy ground, nr. The Fever Hospital, Poole, Dorset, v.c. 9 July, 1899.—C. Waterfall. No, type.—E. S. and C. E. S.

Salsola Kali, Linn. var. *tragus*, D. C. Waste ground, W. of the Docks, towards Hessle, Hull; E. Yorks, v.c. 61. Identified at Kew. Oct, 1899.—C. Waterfall.

Rumex maritimus, L. Border of Martham Dike, E. Norfolk, 25/7/1899. J. & A. Bennett.

R. maritimus, Linn. Cold Harbour, Harpenden, Herts. Aug. 11, 1899.—D. M. Higgins. Correct; additional to v.c. 20.—E. S. and C. E. S.

Euphorbia Peplis, Linn. Slapton, S. Devon, Aug. 1899. —G. C. Druce.

E. Esula, L. Established on the railway, Spynie, Elgin, 19/8/1898.—E. S. Marshall. It is interesting to find this species established so far north as Elgin. Its position suggests its introduction by railway construction or railway traffic which have added so many alien species of the flora of Scotland. Here as elsewhere in N. Europe it is, of course entirely dependent upon artificial conditions.—S. T. Dunn.

Salix alba, L. var. *cærulea*. Fls. near Blandford, Dorset. Ap. 10, 1894. Foliage, Kinson, Dorset, Aug 1, 1898—E. F. Linton.

S. cinerea × *purpurea*, (No. 192). *S. sordida*, Kerner. Hort. Bournemouth. Early April and late July, 1898-99.—E. F. Linton.

S. cinerea × *Myrsinites*, (No. 278). Made and grown Hort. Bournemouth; 10-12th May, 1898-99; foliage, 24th July, 1899. —E. F. Linton.

S. repens × *viminalis*, (No. 280). Made and grown Hort. Bournemouth; male, early April; female, early May; foliage, 24th and 25th July, 1898-99. E. F. Linton.

S. phylicifolia × *purpurea*, (No. 191). *S. secerneta*, B. White. Hort. Bournemouth, May 12, and July 20, 1898-99.—E. F. Linton.

S. nigricans × *phylicifolia*. Orig. prope Moffat. Hort, Bournemouth, 17/4 and 27/6, 1894.—E. F. Linton.

S. Myrsinites, L. f. *procumbens.* Hort. Bournemouth, April and 21 Aug, 1895. E. F. Linton.

Cephalanthera rubra, Rich. Beechwood nr. Stroud, Gloucestershire, 7/99. The locality produced very few specimens this year.—H. P. Reader.

Habenaria intacta, Benth. Limestone pastures, Ballyvaughan, Co. Clare, Ireland, May 11, 1899.—D. T. Playfair.

Sisyrinchium californicum, Aiton. Ref. No. 1664. Rosslare, Co. Wexford, 16/6/1896.—E. S. Marshall. See Journal of Botany, 1896, p. 494.

Polygonatum officinale, All. Fissures in limestone, Hutton Roof, Westmoreland, Aug. 3, 1899.—D. T. Playfair.

Allium Ampeloprasum, L. var. *Babingtonii* (Borr.) Newquay, Cornwall, Aug. 22, 1899.—A. J. Crosfield.

Luzula arcuata, Sw. Cairngorm, E. Inverness and Banff, 8/8/1898.—E. S. Marshall. Coinnemheall, nr. Inchnadamph, Sutherland W. July 31, 1899.—C. E. Salmon.

L. Forsteri × *vernalis*, Swanscombe Wood, West Kent, May 22, 1899.—A. H. Wolley Dod.

Sparganium affine, Schnizl. Stream on hills E. of Daltot cottage, Loch Sween, Cantire, Aug. 1899. Confirmed by W. H. Beeby.—C. E. Salmon. New County Record.

Potamogeton Drucei, Fryer. River Loddon, Berks, Aug. 1898.—G. C. Druce.

P. alpinus, Balb. Stalham Dike, E. Norfolk, 24/7/1899. —J. and A. Bennett.

P. alpinus, Balb. Floating on the surface of the water, Barmston Drain, Dunswell Lane, nr. Beverley, E. Yorks, v.c. 61, May, 1899.—C. Waterfall. Yes. A. B.

P. lanceolatus, Sm. Nr. Ballyvaughan, Co. Clare, Ireland, June, 1899. Legit P. B. O'Kelly.—D. T. Playfair.

P. crispus, Linn. var. *serratus*, Huds. Fide Rev. W. R. Linton. Canal, Renishaw, Derbyshire, v.c. 97. July, 1899. —C. Waterfall. These specimens differ from the state of *P. crispus* generally accepted by British Botanists as Hudson's *P. serratus*, by the indistinct, practically obsolete serration of the margins of the leaves, in the axillary branchlets having the lower leaves directly sessile on the stem, not mounted on sheath-like stipules, and in the presence of minute glands on the stem at the base of many of the leaves. The habit of the plant is rather that of *P. Friesii*, or of young states of *P. obtusifolius*, than of *P· crispus*; the flower-spike too indicates some kinship to *P. Friesii*. The Rev. W. R. Linton, who discovered the plant, tells me that it grew with *P. crispus* and *P. Friesii*,and he now thinks that it is a hybrid between the two. This is the view I took when I first saw the specimens, and I am disposed to believe that *Friesii* is the second parent. When growing Mr. Linton supposed it to be *P. obtusifolius*, misled no doubt by the foliage of a darker green than that of *P. Friesii*. In accordance with the plan I have followed in the case of hybrid Potamogetons, I propose for this plant the name of its discoverer; who has permitted me to describe it, and who has supplied details of the habit of the living plant which leave little doubt of the correctness of the conclusion we independently arrived at as to its hybrid origin. Those who object to accept the name of ×*Potamogeton Lintoni* may label their specimens *P. Friesii* × *P. crispus*; in which case, however, it is to be hoped they will be consistent enough to discard such names as *P. fluitans*, *P. nitens*. and *P. decipiens*. *P. Lintoni* is very distinct from the closely allied hybrid *P. Bennettii* (=*P. crispus* × *P. obtusifolius*)—Alfred Fryer.

P. zosterifolius, Schum. Stalham Dike, E. Norfolk 24/7/1899.—J. and A. Bennett.

P. obtusifolius, M. and K. Stalham Dike, E. Norfolk, 24/7/1899.—J. and A. Bennett.

P. Friesii, Rupr. Stalham Dike, E. Norfolk, 24/7/1899.—J. and A. Bennett.

P. Friesii, Rupr. (1) Out of the Canal, near Renishaw, Derbyshire, v.c. 57 July 1. 1899. (2) Out of R. Stour, near Christchurch, S. Hants, v.c. 11, July, 1899.—C. Waterfall. Both correctly named: the latter a New County Record.—A.B.

Ruppia rostellata, Koch, var. *nana*, Syme. Loch Sween, Cantire. Aug. 9, 1899. Stems creeping in the mud and rooting.—C. E. Salmon. New to v.c. 101.

Zostera marina, L. and var. *angustifolia*, Fr. Shore of Loch Sween, Cantire. Aug. 6, 1899. The narrow leaved variety seems to gradually shade into the type.—C. E. Salmon.

Zostera nana, Roth. Head of Loch Sween, Cantire, New County Record, Aug. 8, 1899.—C. E. Salmon.

Scirpus rufus, Schrad. Shoreturf, Troon, Ayrshire, v.c. 75. June, 1893.—A. Somerville.

Rhynchospora fusca, R. and S. Castlebar, W. Mayo. 24/6/1899.—E. S. Marshall. Bog, near Elstead, Surrey. July 4, 1899.—D. T. Playfair.

Kobresia caricina, Willd. Ben Laoigh, Perth. Aug. 1898.—G. C. Druce. July 17, 1899.—F. C. Crawford.

Carex dioica, L. Brookwood, Surrey. 15/6/1898.—E. S. Marshall.

C. rupestris, All. Cnochan rocks, W. Ross, July, 1894.—G. C. Druce. Inchnadamph. W. Sutherland, July 24, 1899.—C. E. Salmon.

C. pauciflora, Lightf. Skipness moor, Kintyre, at 900ft. v.c. 101. July 5, 1899.—A. Somerville.

C. paniculata, Linn. var. *simplicior*, Andrz. Boggyfield, Wansford, nr. Driffield, E. Yorks, v.c. 61. June, 1899. Fide A. Bennett.—C. Waterfall.

C. paniculata × remota, ? (C. *Boenninghausiana*, Whe.) Near Tilford, Surrey. 13/6/1898.—E. S. Marshall.

C. helvola, Blytt. var. Ben Lawers, Perth, Aug. 1897.—G. C. Druce.

C. atrata, Linn. Ben Laoigh, Perthshire, July 17, 1899. —F. C. Crawford. One of the sheets was *C. pulla*, Good. the rest correct.—E.S. and C.E.S.

C. laevigata, Sm. Near Newport. W. Mayo, 28/6/1899.—E. S. Marshall.

C. distans, L. Near Newport, W. Mayo, 28/6/1899—E. S. Marshall.

C. fulva, Good. Damp pastures, New Galloway, Kirkcudbrightshire, N.B. July 16, 1898.—D. T. Playfair, Yes. A.B.

C. fulva, Good. Damp pastures, Horning, Norfolk. June 24, 1899.—D. T. Playfair. Excellent *C. filiformis*, Linn. E.S. and C.E.S.

C. rostrata, var. *latifolia*. Deep drain, Mullaghmore Lough, nr. Loughgilly, Co. Armagh. June 15, 1895.—H. W. Lett. This is *C. rostrata*, Stokes, var. *robusta*, Sonder (1851), (sub *ampullacea*, Good.) ; it equals *C. rostrata*, Stokes var. *latifolia*, Ascherson (1864). A.B.

C. rostrata, var. *elatior*. Deep drain, Mullaghmore, L. near Loughgilly, Armagh. June 15, 1895.—H. W. Lett. *Not elatior* of Blytt. A.B.

Panicum Crus-galli, Linn. Waste ground, W. of the Docks, towards Hessle, Hull, E. Yorks, v.c. 61, Oct. 1899. Identified at Kew.—C. Waterfall.

P. miliaceum, Linn. Same locality, date etc. as above.—C. Waterfall.

P. capillare, Linn. Same locality, date etc. as above.—C. Waterfall.

Setaria viridis, Beauv. Waste ground, W. of the Docks, towards Hessle, Hull, E. Yorks, v.c. 61, Oct. 1899. Identified at Kew.—C. Waterfall.

S. italica, Beauv. Same locality, date etc, as above.—C. Waterfall.

S. verticillata, Beauv. Same locality, date etc. as above.—C. Waterfall.

Hierochloe borealis, R. and S. Banks of Thurso River, Caithness, May 15, 1898. Coll. R. Lindsay.—D. T. Playfair.

Sesleria cœrulea, Ard. var. *luteoalba*, Opiz. Pastures, Bally Vaughan, Co. Clare, Ireland. May 11, 1899.—D. T. Playfair.

Agrostis vulgaris, With. var. *nigra*, (With). Field near Thurnby, Leicester, Sep., 1899.—A. B. Jackson. I think right.—E. F. Linton. New record for v.c. 55.

Aira caryophyllea, L. var. *multicaulis*, (Dum). (Teste Hackel). Railway embankment, nr. Leek Wootton, Warwick, v.c. 38, June 13, 1897.—H. Bromwich and A. B. Jackson.

Weingœrtneria canescens, Bernh. Caistor Marrams, E. Norfolk, 29/7/99.—Coll. J. and A. Bennett.—A. B. Jackson.

Glyceria distans, Wahl. var. *pseudo-procumbens*, W. Dod. Canal side at Higham, W. Kent, July 8, 1899. See Journal of Botany, 1895, p. 84.—A. H. Wolley Dod.

Festuca ambigua, Le Gall. Sandy shore, Studland. Dorset, v.c. 9. June 7, 1899.—A. B. Jackson.

Bromus interruptus, Druce. Princes Risborough, Bucks, July, 1898.—G. C. Druce.

Agropyron pungens, Roem and Schult. Sea sand on beach, shore of Poole harbour, nr. Hamworthy Station, Dorset, v.c. 9. July, 1899.—C. Waterfall. *A. pungens*, R. and S. var. *pycnanthum*, Gr. and Godr.—E. F. Linton. Of one specimen (not distributed), that had the pales distinctly awned, Mr. Linton says "I don't know var. *litorale*, Rch., but this seems to be the same as what Hackel has named more than once *A. pungens*, R. and S. var. *aristatum*, Warren."

A. pungens, Roem and Schult. On a wall, Christchurch, S. Hants, v.c. 11. July, 1899.—C. Waterfall. *A. pungens*, R. and S. var. *pycnanthum*, Gren. and Godr. Probably from the sandy margin of the estuary (and not "on a wall") between Christchurch and Hengistbury Head, where I know this plant grows. Particles of sand attached to the root-fibres shew the soil it came from.—E. F. Linton.

Athyrium alpestre, Milde. (a form or var.) Ref No. 2190. Cairngorm, E. Inverness, 8/8/1898.—E. S. Marshall.

Lastrœa rigida, Presl. Cefn Fedw, Llangollen, Denbigh. Plentiful over 2 or 3 acres, Aug. 14, 1899. Additional to v.c. 50. A. H. Wolley Dod.

Chara ——— In a tarn on the limestone, Cunswick, near Kendal, Westmoreland, Aug. 1899.—C. H. Waddell. *C. polyacantha*, Braun. and *C. aspera*, Willd. sub. sp. *desmacantha*, H. and J. G.—Both additional to v.c. 69.—H. and J. Groves.

Nitella mucronata, Coss. & Germ. Godstow, Oxon. A full account of the discovery of this species near Oxford will be found in the Report of B. E. C. 1892 p. 395 and in Fl. Berks, p. 623. I have not been able to see it since 1893.—G. Claridge Druce.

SUPPLEMENT.

Silence nutans, Linn. Don's Bridge, Jersey. May 25, 1897.—D. T. Playfair. As some doubt was felt about this plant, it was sent to Rev. E. S. Marshall for his opinion. His determination was "clearly *S. italica*." This species is likely to occur, as a native, in many localities in Great Britain, and is probably often confounded with *S. nutans*. Syme points out (in E.B.) that *italica* differs from *nutans* by the gynophore being as long as the capsule (in *nutans* about one-third as long), and the claw of the petals auricled at the summit (which is not so in *nutans*). In the *flowers*, too, we have examined of *S. italica* this greater length of gynophore can be seen although it is less noticeable than in fruiting specimens. The figure of the capsule of *S. italica* given in E.B. is somewhat misleading, as the capsule is represented as greatly exceeding the calyx in length. In reality, in both *nutans* and *italica*, the calyx about equals the capsule, and it is probable that the figure above referred to was drawn from a capsule of which the calyx (as frequently happens in age) has split asunder and broken away at the top. We have lately examined specimens of *S. italica* from Sussex (T. Hilton), Kincardine (W. Gardiner), and Kent (Dungeness), where we gathered it in 1888; in each instance it has been labelled *nutans*. Perhaps many of the Channel Islands records of *nutans* may really be those of *italica*, but the two species sometimes grow together, as at Dover. It would be interesting if botanists visiting the Channel Islands would investigate the matter. E.S. and C.E.S.

Stellaria media, Cyr. v. *major*, Koch. Nr. Sutton-on-Hull, E. Yorks. v.c. 61. June, 1897.—C. Waterfall. Rightly named. New to v.c. 61. E.S. and C.E.S.

"*Lepigonum salinum*, Fr. Criccieth, Caernarvon. July, 1890.—W. H. Painter. *L. marginatum*. A. Bennett." The above note appears in Watson B.E.C. Report, 1890-91. Recently, however, examining a specimen so named and localized in our herbarium, we found the same to be undoubtedly *Spergularia rupestris*, Lebel. Will members look up their specimens in case there has been a mixture of species. E.S. and C.E.S.

Rubus ———. Lisnagade, Co. Down. July 30, 1898. Ref. No. 6.—H. W. Lett. "This seems altogether anomalous, with the *strongly* Koehlerian stem of my *R. dasyphyllus* (*R. pallidus*, Bab.), and (as a rule) a wholly eglandular panicle fitting it for a place among the Silvatici. If stem pieces and panicles are from the same bush or bushes (which I do not question) there seems no alternative but to regard it as a hybrid." —W. M. Rogers.

Euphrasia officinalis, Linn. Totternhoe, Beds. Aug. 1897. —D. M. Higgins. *E. Kerneri*, Wettst. F. Townsend.

E. officinalis, Linn. Totternhoe, Beds. Aug. 29, 1898.—D. M. Higgins. *E. nemorosa*, H. Mart. F.T.

SUBSCRIPTIONS, 1899.

	£	s.	d.
Bostock, E. D.	0	5	0
Cotton, Mrs.	0	5	0
Crosfield, A. J.	0	5	0
Ewing, P.	0	5	0
Geldart, H. D.	0	5	0
Goss, H.	0	5	0
Goode, G.	0	5	0
Griffiths, J. E.	0	5	0
Gregory, Mrs. E. S.	0	5	0
Higgins, Miss	0	5	0
Jackson, A. B.	0	5	0
Lett, Rev. Canon	0	5	0
Mennell, H. T.	0	5	0
Powell, J. T.	0	5	0
Praeger, R. Ll.	0	5	0
Playfair, Dr. D. T.	0	5	0
Reader, Rev. H. P.	0	5	0
Scott Elliott, G. Y.	0	5	0
Somerville, A.	0	5	0
Standen, R. H.	0	5	0
Thompson, H. S.	0	5	0
Waddell, Rev. C. H.	0	5	0
Waterfall C.	0	5	0
Wolley Dod, Major A. H.	0	5	0
Woodhead, T.	0	5	0
	£6	5	0

TREASURER'S BALANCE SHEET, 1899.

Receipts.

	£	s.	d.
Balance from 1898	6	8	11
Subscriptions, 1899	6	5	0
	£12	13	11

Expenditure.

	£	s.	d.	£	s.	d.
Printing—						
A. J. Holmes, 15th Report, &c.	5	7	6			
,, ,, Desiderata List	0	11	9			
				5	19	3
Working Expenses—						
Distributors	0	13	8			
Secretary	0	5	0			
Treasurer	0	3	10			
				1	2	6
Balance				5	12	2
				£12	13	11

J. T. POWELL,
Hon. Treasurer.

17

THE
SEVENTEENTH ANNUAL REPORT
OF THE
WATSON
Botanical Exchange Club,
1900-1901.

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J. G. BAKER, F.R.S., F.L.S., 3, Cumberland Road, Kew
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Street, Birmingham.

"LABOR OMNIA VINCIT."

BIRMINGHAM:
Morland & Henson, Printers, Edmund Street.
1901.

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1901.

16 AUG 1901

THE WATSON
BOTANICAL EXCHANGE CLUB.

REPORT FOR 1900-1901.

The number of plants contributed was 3,155; a number considerably in excess of that in late years. Twenty-four members sent in plants for distribution and naming, and the material, as a whole, was satisfactory, many specimens being very beautifully prepared.

At *p*. 14, will be found a further and full description of the new Bramble, *Rubus Lettii*, mentioned in last year's Report, and at *p*. 25, a new variety of *Chenopodium album* is reported.

Another plant of great interest is the new generic hybrid *Bromus commutatus*, Schrad. × *Lolium perenne* L. (*p*. 35), the lately discovered *Alopecurus hybridus*, Wimm., (*p*. 34), the new Mullein hybrid (*Verbascum pulverulentum* × *Thapsus*) (p 24), and the new Scotch *Betula* (*B. alpestris*, Fr.) (*p*. 28).

A feature of the present distribution is the large number of Aliens sent in; on many of these Mr. S. T. Dunn has kindly written notes.

As usual, the Club is much indebted to the Rev. W. Moyle Rogers for examining and noting upon the *Rubi*. The thanks of the Club are due to the following botanists also for their critical help in various genera ; Mr. Ar. Bennett, Rev. E. F. Linton, Rev. W. R. Linton, Rev. E. S. Marshall, Mr. G. Claridge Druce, Mr. F. Townsend, Mr. J. E. Bagnall and Mr. H. W. Pugsley.

We would remind Members that they are requested, in order to keep the Club Desiderata List in touch with contributors, to send in with the plants for the next distribution a list of their desiderata *not at present on the Club List.*

The following is the list of the contributing members :—

Mr. W. Bell	30
Mr. A. Bennett ...	30
Mr. E. Cleminshaw ...	10
Mr. F. C. Crawford ...	116
Mr. A. J. Crosfield ...	18
Mr. H. D. Geldart ...	57
Mr. J. E. Griffith ...	22
Miss D. M. Higgins ...	41
Mr. T. Hilton... ...	202
Mr. A. B. Jackson ...	39
Rev. Canon Lett ...	118
Rev. E. F. Linton ...	78
Rev. E. S. Marshall ...	296
Dr. D. T. Playfair ...	215
Mr. J. T. Powell ...	24
Rev. H. P. Reader ...	79
Mr. C. E. Salmon ...	84
Mr. A. Somerville ...	27
Mr. R. S. Standen ...	30
Mr. H. S. Thompson...	84
Rev. C. H. Waddell ...	126
Mr. C. Waterfall ...	595
Mr. J. W. White ...	725
Major A. H. Wolley Dod	109
	3,155

E. S. & C. E. SALMON,

Distributors for the year 1900-1901.

Mr. Powell, who has been our Treasurer for so long, was unfortunately obliged to resign through failing health ; and Mr. Alex. Somerville, B.Sc., F.L.S., President of the Natural History Society of Glasgow, and of the Conchological Society of Great Britain and Ireland, has kindly consented to act in his place.

Some of the new Members may be unaware that Messrs. E. S. and C. E. Salmon have now undertaken the duties of "Distributors" for five years; and it is not too much to say that the success of the Club is very largely due to their untiring energy, and to the self sacrificing manner in which they have devoted so large an amount of time to its interests.

Members can have *back copies* of any of the *Reports*, except the 1st, 2nd, 3rd, 4th, 8th, and 16th by applying to the Hon. Sec. and paying the postage, also extra copies of the Desiderata List.

H. S. THOMPSON.

Thalictrum dunense, Dum. Sandhills by the sea, Ballykinlar, Co. Down, Sept., 1900.—C. H. Waddell. In spite of the sandhill situation, I prefer to call this *T. collinum*, Wallr., rather than *T. dunense*, Dum.—E. F. Linton.

Ranunculus pseudo-fluitans, "Bab." In the R. Axe, below the Gorge at Cheddar, N. Somerset.—May 30, 1888.—J. W. White. Yes, we should so label it, though of course the name is a very unsatisfactory one.—H. and J. Groves.

R. trichophyllus, Chaix. Ditch, Coombe, W. Sussex.—June, 1900.—T. Hilton. Yes.—H. and J. G.

R. heterophyllus, Web., var. *submersus*, Hiern. Ditches, Shirehampton, W. Glos.—May 27, 1899.—J. W. White. Yes, just the plant of our Thames salt-marshes.—H. and J. G.

R. peltatus, Schrank. Pool at 650 ft., near Barrow Gurney, N. Somerset.—June 22, 1900.—J. W. White. Apparently *R. peltatus*, a very curious and interesting form. The peduncles are remarkably short and weak, and most of the carpels are undeveloped. The developed carpels are covered with strong bristles. No doubt the situation has something to do with the peculiarities of the plant.—H. and J.G.

R. peltatus, Schrank. var. *penicillatus*, Hiern. (1). Out of L. Coron, Bodorgan, Anglesea, v.c. 52, June 30, 1900. (2). Out of 1 ft. of water in drain, Sand-le-mere, near Withernsea, E. Yorks. v.c. 61, June, 1900.—C. Waterfall. *R. peltatus*, *not penicillatus*.—H. and J. G.

R. peltatus, Schrank. var. *truncatus*, Hiern. Out of 1 ft. of water in drain, Sand-le-mere, near Withernsea, v.c. 61, May 28, 1898.—C. Waterfall. Most of the specimens are *R. peltatus*, and some of them belong to the form *truncatus*. The three specimens in the cover (distinguished by a note in distributing) appear to belong to a large flowered form of *R. heterophyllus*.—H. and J. G.

R. peltatus, Schrank. var. *floribundus*, Bab. Pool in a field near Burtwick, E. Yorks., v.c. 61, May, 1898.—C. Waterfall. Apparently *R. heterophyllus* v. *submersus*, but too young for satisfactory determination.—H. and J. G.

R. Baudotii, Godr. Falmer, E. Sussex, May, 1900. Fresh water pond.—T. Hilton. Yes.—H. and J. G.

R. flabellatus, Desf., var. *europæus*, Nyman. Ex. hort. Bromley, Kent; orig. from St. Aubin's Bay, Jersey, May, 1900. —D. T. Playfair.

Papaver dubium, L. var. *Lecoqii*, Lamotte. Hedgebank in cornfield, near Bryn Enryn, Denbighshire, v.c. 50, July, 1900. Sap yellow.—C. Waterfall. Correct; new record for the vice-county.—E.S. and C.E.S.

Neckeria bulbosa, N. E. Br. Among grass in Hotham Park, North Lane, E. Yorks. v.c. 61, April, 1900. Probably introduced.—C. Waterfall. Correct. Native of woods and bushy hillsides in most parts of Europe. In England only recorded as an escape from cultivation, though sometimes well-established, as one would expect so near its native area.—S. T. Dunn.

Fumaria pallidiflora, Jord. On old wall, near Mochdre, Denbighshire, July, 1900.—C. Waterfall. Correct. H. W. Pugsley. Additional to v.c. 50.

F. pallidiflora, Jord. Cornfields, Pabo Hill, Carnarvonshire, v.c. 49, July 1900.—C. Waterfall. I think *F. Boræi*, Jord., but the specimens are not very satisfactory.—H.W.P.

F. pallidiflora, Jord. Hele Road, Ilfracombe, N. Devon, v.c. 4. Coll. D. M. Higgins. June, 1897.—C. Waterfall. This is the plant described in Bab. Man. as *F. pallidiflora*, Jord., *β Boræi*. It is not the *F. Boraei*, Jord.—H.W.P.

F. confusa, Jord. Cult. land, Uckfield, Sussex. June, 1900. —T. Hilton. This is the true *F. confusa* of Jordan.—H.W.P.

F. muralis, Sond. Hedges near Brereton, Staffs, Aug., 1900.—H. P. Reader. Yes.—H.W.P.

F. densiflora, D.C. Waste ground, Ashburnham Road, Luton, Beds.—D. M. Higgins. No; *F. officinalis*, L.—H.W.P.

F. densiflora, D.C. Racehill, Brighton, E. Sussex. July, 1900.—T. Hilton. Yes.—H.W.P.

F. densiflora, D.C. Cornfield, Pabo Hill, Carnarvonshire, v.c. 49, July, 1900.—C. Waterfall. No; *F. officinalis*, L.—H.W.P.

F. Vaillantii, Loisel. Ashburnham Road, Luton, Beds. July 24, 1900.—D. M. Higgins. Correct.—H.W.P.

F. parviflora, Lam. Stanmer Park, E. Sussex. July, 1900.—T. Hilton. Yes.—H.W.P. An addition to v.c. 14.

Barbarea praecox, Br. (1). Waste ground, Stapleton, Bristol. June 19, 1897. (2). St. Vincent's Rocks, Clifton, Bristol. June 2, 1900.—J. W. White. Correct; possibly this like many other species well-established on St. Vincent's Rocks has escaped from gardens overlooking the Avon gorge.—S. T. Dunn.

Sisymbrium Irio, L. Waste ground, West Dock Reservation, Hull, E. Yorks, v.c. 61, July, 1900.—C. Waterfall. No, *S. Columnæ* Jacq. This species is apparently becoming more common every year about our large towns. A very different plant to *S. Irio*, L.—S.T.D.

Camelina sativa, Crantz, var. *fœtida*, Fr. Aldrington Basin, E. Sussex.—T. Hilton. *C. sativa*, Crantz. Waste ground, West Dock Reservation, Hull, E. Yorks, v.c. 61, Dec. 1900.—C. Waterfall. *C*————, Hawkesyard, Staffs., July, 1900.—H. P. Reader. *Camelina fœtida*, Fr. and *C. sativa*, Crantz, are probably not distinguishable as species, but when typical have the following differences:—*C. fœtida* has a short lax raceme, its silicules are on spreading peduncles, have obversely cordate septa, and soft valves, and its seeds are three-lobed; *C. sativa* has an elongate raceme, ascending peduncles, obovate septa, hard valves, and cylindric seeds. Mr. Hilton's specimens approach the former, but have the firm valves of *sativa* and scarcely cordate septa. Of Mr. Waterfall's specimens, one sheet submitted to me carries two forms neither of which has ripe fruit, the second agrees with Mr. Hilton's specimens. Mr. Reader's specimens are also immature, but are probably fairly typical *C. sativa*.—S.T.D.

Lepidium ruderale, Linn. Dry bank, Aylestone, Leicester.—Aug., 1900. This, a few years ago, was only found in one locality; now it has become more plentiful in that locality, and a fresh one is recorded on the opposite side of the town.—W. Bell. Correct. This rapid spreading of *L. ruderale* is occurring in many of the larger towns. About London it is already one of the commonest waste-ground weeds.—S.T.D.

Thlaspi alpestre, L. var. *virens* (Jord.), Matlock, Derbyshire, May, 26, 1900.—D. T. Playfair. Yes, *virens*.—E. S. & C. E. S.

Polygala oxyptera, Reichb. Downs, Hodshrove, E. Sussex, May and June, 1900.—T. Hilton. Yes, *oxyptera*.—E. S. & C. E. S.

P. austriaca, Crantz. Near Hastingleigh, E. Kent, plentiful, June 17, 1900.—C. E. Salmon.

Saponaria Vaccaria, L. (1) Waste ground, West Dock Reservation, Hull, E. Yorks, v.c. 61, July, 1900.—C. Waterfall. (2) Rubbish heap, Brighton, E. Sussex, July, 1900.—T. Hilton. Correct. An almost invariable component of corn alien colonies in consequence of its frequency as a cornfield weed in the corn growing districts of S. E. Europe.—S. T. Dunn.

Silene conica, L. Near Parkstone, Dorset, June 14, 1900.—This plant hitherto queried as an alien for the county, appears to me on investigation to be thoroughly native; for though the area in which I saw the plant is very restricted, it is a perfectly natural one, and the Rev. W. Moyle Rogers tells me that it is nearer two miles than one distant from that reported by Mr. Hussey, in 1886.—E. F. Linton.

S. conica, L. Kingsley, Hants, N., May 30, 1900. Coll. Miss S. Smyth.—H. D. Geldart. Miss Smyth furnished the additional information that the specimens grew in a cultivated field, on a sandy soil, of Crimson Clover, with such plants as *S. Cucubalus*, *Lycopsis*, *Papaver argemone and P. dubium. Specularia, &c.* *S. conica* has not been previously recorded for N. Hants, and if it is not merely an alien here, is an interesting addition. We have seen it in sandy cultivated fields in Norfolk, where it is considered a native.—E. S. & C. E. S.

S. nutans, Linn. Downs, Bevendean, E. Sussex, July, 1900.—T. Hilton. I should put this to *S. italica* (the Dartford plant, but less luxuriant.)—E. S. Marshall. See also Supplement in Watson B. E. C. Report, 1899—1900.

S. nutans, L. Limestone rocks, Bryn Euryn, Colwyn Bay, Denbighshire, v.c. 50, July, 1900.—C. Waterfall. I consider this to be true *nutans* and not *S. italica*.—E. S. M.

Cerastium pumilum, Curt. In rupibus S. Vincentii prope Bristolium habitat, April 20, 1894.—J. W. White.

C. glomeratum, Thuill. var. *apetalum*, Dum. Keston Common, W. Kent, June 9, 1900.—A. H. Wolley Dod. A mixture; members will find that the larger plants have petals to the flowers, and do not belong to the variety.—E. S. & C. E. S.

C. arvense, approaching *Andrewsii*. Grassy knoll at Forge Valley, Yorks., June 5th, 1900. Sub-glabrous rigid leaves, with strong midrib.—H. S. Thompson. A state merely, not *Andrewsii*, leaves not sufficiently glabrous, &c. A plant collected in Surrey by us has quite glabrous leaves, but not the sub-solitary flowers of *Andrewsii*.—E.S. and C.E.S.

Stellaria media var. *neglecta*, Weihe. Wet ground at Rednall, Worcestershire.—May 26, 1900. Stamens 10—H. S. Thompson. Yes. The name *neglecta* is replaced by *major*, Koch.—E.S. and C.E.S.

S. media, Cyr. var. *major* Koch. (1) Lane side, West Moor, near Doncaster, v.c. 63, May, 1898. (2) Waste ground, West Dock Reservation, Hull, E. Yorks., v.c. 61, Sept., 1900. (3) Garden weed, De Grey Street, Hull, E. Yorks, v.c. 61, July, 1900.—C. Waterfall. None of these specimens, even the largest, seem to possess 10 stamens, hence we should call them all *S. media* type. It would save much time if members would note number of stamens when collecting *S. media* forms.—E.S. and C.E.S.

S. umbrosa, Opiz. Shirley, Derbyshire, May, 1900.—D. T. Playfair.

Montia fontana, L. (1) Duncansby, Caithness, July 6, 1899. Coll. A. M. Geldart.—H. D. Geldart. (2) Stroma, Caithness, July 20, 1899. Coll. A. M. Geldart.—H. D. Geldart. (3) var. *erecta*, Pers.? Bog on Charnwood Forest, alt. 800 feet, Leicestershire, June 9, 1900. Fide F. H. Davey.—H. S. Thompson. (4) var. *erecta*, Pers.? Spring near Liskeard, alt. 900 feet, Cornwall, v.c. 2, Sept. 16, 1900. Fide F. H. Davey.—H. S. Thompson. (5) var. *repens*, Pers. Sandy shore of L. Coron, Bodorgan, Anglesea, v.c. 52, June 30, 1900.—C. Waterfall. (6) var. *repens*, Pers. Chailey Common, E. Sussex, May, 1900.—T. Hilton.

(1) var. *erecta*, Pers. (2) var. *erecta*, Pers. (3) var. *repens*, Pers.; tubercles of seeds prominent, or flattened and indistinct. (4) var. *erecta*, Pers. (5) var. *repens*, Pers., but seeds often with the indistinct flattened tubercles described as characteristic of the var. *erecta*. (6) var. *erecta*, Pers.; a very interesting form, with the conically tuberculated seeds described by some authors as found only in var. *repens*. Babington (Man. ed. 8, p. 139) gives the character "seeds netted-asperous" for "*M. fontana* (L) a. *M. minor* (Gm.)" and "seeds netted" for "β *M. rivularis* (Gm.)." Hooker (Stud. Fl. ed. 3, p. 69) says "*M. fontana*, L., var. *M. minor* Gmel., tubercles of seed conical.—var. *M. rivularis*, Gmel., tubercles of seed flattened." As noted above, we do not find these distinguishing characters to hold good, and it seems that the varieties are best separated by habit and by the position of the cymes. Neither Allioni (Fl. Ped. I., p. 79 [1785]), Persoon (Syn. Pl. I., 111 [1805]), nor Gmelin (Fl.

Bad. Alsat. I., 301 [1806]), (who gave the two plants specific rank), mention any distinguishing seed-characters.—E.S. and C.E.S.

Elatine hexandra, D.C. Great Pond, Piltdown, E. Sussex, Aug., 1900.—T. Hilton. A new Sussex station.

Hypericum elatum, Ait. Worle, N. Somerset (an escape), July 28, 1899—J. W. White. Correct, S. T. Dunn.

Malva pusilla, Sm. (1) South of Lighthouse, Kingston, W. Sussex, Aug., 1900.—T. Hilton. (2) Cult. land, East of Brighton, E. Sussex, Aug., 1900.—T. Hilton. (3) Tripcock Ness, W. Kent, Aug. 18, 1900.—A. H. Wolley Dod. (4) Amongst long grass by roadside, Shortland, Kent, Sept. 5, 1900.—D. T. Playfair.

The small-flowered Malvas of N. Europe have been much confused. Linnæus (Fl. Suec. [1755], 243) under *M. rotundifolia* writes, "Apud nos flores communiter minores, corolla omnino alba; Stockholmiæ autem corolla majore purpurascente obvia planta, isti apud exteros." It thus appears that he included *M. neglecta*, Wallr., with its petals two or three times as long as the calyx and purple, and also *M. borealis*, Wallm., with petals pale and about equal to the calyx. Most English botanists mean by *M. rotundifolia* Linnæus' species after *M. borealis*, Wallm. (*M. pusilla*, Sm.) has been removed. But in Koch's Synopsis, ed. III., I., 418, and elsewhere, *M. neglecta*, Wallr., is kept up while *M. rotundifolia*, L., refers only to smaller-flowered plants (*M. borealis*, Wallm.) *M. parviflora*, L., is readily separable by its enlarged fruiting calyx, and *M. nicæensis*, by its broad outer calyx segments. All the plants submitted to me are *M. borealis*, Wallm.—S. T. Dunn.

Geranium rotundifolium, L. Garden weed, Bromley, Kent. June, 1900. Two plants appeared in my garden 3 years ago, and it is now abundant there. Five or six years ago it was found in a garden at Bickley, about 1½ miles from me. I can give no explanation of its appearance hereabouts; no one in the district has a botanical garden.—D. T. Playfair.

Erodium cicutarium, L'Hérit., var. *chærophyllum*, Cav. Newmarket Hill, E. Sussex. 1900.—T. Hilton. Yes.—E.S. and C.E.S.

Ononis repens, L. var. *horrida*, Lange. (1) Grassy bank of R. Hull, 6 miles above Stoneferry, near Hull, E. Yorks., v.c. 61, Aug., 1900. Foetid and viscidly hairy. (2) Waste ground, Humber fore-shore, Hessle, E. Yorks., v.c. 61, Aug., 1900. Foetid and viscidly hirsute. (3) Sea sands on coast, between Llandulas and Llysfaen, Denbighshire, v.c. 50, July,

1900. Foetid and viscidly hirsute.—C. Waterfall. (1) and (2). These plants seem to us to belong to *spinosa*. Mr. Waterfall, however, says that his plants are "foetid." Hooker says *spinosa* is not foetid. (3) Correctly named.—E.S. and C.E.S.

Melilotus arvensis, Wallr. Border of cornfield, Aylestone, Leicester, v.c. 55, Aug., 1900. I found this species in the county (for which it was previously unrecorded) in 1898, in a locality about six miles from the one where the present specimens were obtained. These were on the border of a field of lucerne, with which it may have been introduced. Rev. E. S. Marshall confirmed my naming.—W. Bell. Correctly named.—S. T. Dunn.

Trifolium elegans (Savi). Hawkesyard, Staffs., July, 1900. —H. P. Reader. This is correctly named, having the solid stems, short flowers (only twice as long as the calyx) and lanceolate stipules to the lower floral leaves which are characteristic of this species.—S.T.D.

T. hybridum, Linn. var. Waste ground, West Dock Reservation, Hull, E. Yorks. v.c. 61, Oct., 1900.—C. Waterfall. Viviparous state merely.—E.S. and C.E.S.

Trifolium———Waste ground, West Dock Reservation, Hull, E. Yorks, v.c. 61. Alien. Sept. 1900.—C. Waterfall. Seems only viviparous *repens*.—E. S. & C. E. S.

Anthyllis Vulneraria, L. var. *Allionii*, DC. North of Boughton Aluph, near Wye, E. Kent, June 16, 1900. This variety, which was found in Div. 6 of Hanbury and Marshall's "Flora of Kent," has stems, petioles and leaves clothed with spreading hairs. The original description in De Candolle's Prod. II., p. 170 (1825), is as follows:—"*floribus flavis, foliis caulibus capitulisque hirsutissimis*." His variety *hirsutissima* has an identical description, except for the words "*floribus coccineis rubrisve*." Recorded by Mr. W. H. Beeby (see Rep. Bot. Ex. Club of Brit. Isles for 1887, p. 170) from Stouting, in Div. 7, and this, hitherto, seems to have been the only Kent station.—C. E. Salmon.

Lotus corniculatus var. By the sea, sandhills, Ballykinlar, Co. Down, Sept., 1900.—C. H. Waddell. Approaching var. *crassifolius*, Pers., but not quite my idea of the plant.— G. C. Druce.

L. uliginosus, Schkuhr., var. Hedgebank, footpath leading to the moors, near Colwyn Bay, Denbighshire, July, 1900.— C. Waterfall. The hairy and common form of the species.— E. S. & C. E. S.

Vicia hybrida, Linn. Waste ground, nr. River, Belgrave, Leicester, Aug. 1900. No previous record for the county. Named by Ar. Bennett.—W. Bell. The poor condition of the specimen makes it difficult to say with certainty whether it is *V. hybrida*, *V. lutea*, or *V. hirta*, but I think it is correctly named as above.—S. T. Dunn.

Lathyrus hirsutus, Linn. Stanmer, E. Sussex. Cultivated land, 1900.—T. Hilton.

Rubus fissus, Lindl. (fide W.M.R.). By lake, Rossmore, Co. Monaghan. New County Record. July 3, 1900.—C. H. Waddell.

R. *suberectus*, Anders.? Sutton Park, Warwickshire, Aug. 25, 1900.—H. S. Thompson. *R. plicatus*, W. and N. I suppose a shade grown form.—W.M.R.

R. *holerythros*, Focke. (1) West Chiltington Common, W. Sussex, July 16, 1898. (2) Colgate, St. Leonard's Forest, Sussex, July 27, 1900.—J. W. White. I believe rightly named.—W.M.R.

R. *imbricatus*, Hort. Habitat in sepibus et ruderatis in valle Glen Frome dictâ non procul Stapleton in comitatu Gloucestriensi, Augusti die XV., 1899.—J. W. White. Yes, all *R. imbricatus*, Hort.—W.M.R.

R. *incurvatus?* Ref. No. 118. Hedge, Lisdalgin, Saintfield, Co. Down, Aug. 21, 1897.—C. H. Waddell. Certainly *R. corylifolius*, Sm.—W.M.R.

R. *Lindleianus*, Lees. Ref. No. 13. Briclan, P. of Aghaderg, Co. Down, Aug. 11, 1900.—H. W. Lett. A fairly frequent form of *R. Lindleianus*, with broadly ovate terminal leaflet, cf. Report, 1898-99, p. 8, and concluding paragraph of description in p. 28 of Handbook. In these Briclan specimens the stem is also less angular than usual and its prickles exceptionally weak.—W.M.R.

R. *Lindleianus*, Lees. Ref. No. 8. Aghaderg Glebe, P. of Aghaderg, Co. Down, Aug. 11, 1900.—H. W. Lett. *R. radula*, Weihe, sub-sp. *echinatoides*, Rogers.—W.M.R.

R. *erythrinus*, Genev. Hanham Woods, West Gloucestershire, Aug. 22, 1898.—J. W. White. Yes, all *R. erythrinus*, Genev.—W.M.R.

R. *rhamnifolius*, W. and N. Ref. No. 17. Leganany, near Silverbridge, P. of Aghaderg, Co. Down, Aug. 13, 1900. —H. W. Lett. Typical *R. Selmeri*, Lindeb.—W.M.R.

R. *rhamnifolius?* Ref. No. 113. Aughnadarragh, Saintfield, Co. Down, Aug. 4, 1897.—C. H. Waddell. Yes, *R. rhamnifolius*.—W.M.R.

R. rhamnifolius, W. and N. Ref. No. 4. Mile Hill Lane, Ballintaggart, P. of Aghaderg, Co. Down, Aug. 2, 1900.—H. W. Lett. Unkown to me; seems a poorly-developed form. Not *R. rhamnifolius*.—W.M.R.

R. ———. Ref. No. 108. Dry banks by the sea, Killough, Co. Down, Aug. 24, 1897.—C. H. Waddell. *R. Bakeri*, F. A. Lees (? Form of exposed ground). Record for Co. Down.—W.M. R.

R. nemoralis, P. J. Muell. Parkstone, Dorset, 4/8/00.—J. T. Powell. Yes.—W.M.R.

R. ———. Abersoch, Carnarvonshire, Aug., 1900.—J. E. Griffith. I think *R. Scheutzii*, Lindeb, but the material is in a very sad condition, making positive determination all but impossible.—W.M.R.

R. dumnoniensis, Bab. Branksome Park, Dorset, 4/8/00.—J. T. Powell. Yes.—W.M.R.

R. villicaulis, Selmeri, Lindeb. Ref. No. 11. Aghaderg Glebe, P. of Aghaderg, Co. Down, Aug. 11, 1900.—H.W. Lett. Yes.—W.M. R.

R. ———. Ref. No. 12. Briclan, P. of Aghaderg, Co. Down, Aug. 11, 1900.—H. W. Lett. *R. Selmeri*, Lindeb. (very luxuriant.)—W.M.R.

R. subinermis, Rogers. (1) Colgate, West Sussex, July 26, 1899. (2) Coolhurst, West Sessex, July 29, 1900.—J. W. White. Yes, exactly my *R. subinermis*.—W.M.R.

R. thyrsoideus, Wimm? (1) Ref. No. 101. By road side, Aughnadarragh, Saintfield, Co. Down, 1897. (2) Ref. No. 102. Hedge, Lisburn Road, Saintfield, Co. Down, Aug. 31, 1897.—C. H. Waddell. 102. Until I have seen better material I am unable to give a definite opinion on this plant. I think it may be a hairy-stemmed, strongly-armed form of the aggregate *R. thyrsoideus*, which would be new for Ireland. Perhaps Mr. Waddell could get better specimems this year gathered at the end of July or quite early in August, including carefully selected *flowering* panicles (of average size), and some perfect leaves. Notes as to the direction of stem and its degree of hairiness would also be helpful. No. 101 seems the same form.—W.M.R.

R. ———. Ref. No. 100. Hedge, Dorans Rock, Saintfield, Co. Down, July 6, 1896.—C. H. Waddell. Much too scrappy. Stem recalls *R. thyrsoideus*, but hardly the panicle.—W.M.R.

R. micans? var *Lettii*, Rogers. (1) Ref. No. 469A, Rowallane, Saintfield, Co. Down, Aug. 18, 1894. (2) Ref. No. 469A. Open place, Tonaghmore, Saintfield, Co. Down, June, 27, 1896. (3) *R. Koehleri*, W. and N. form. Ref. No. 506. Open field, Saintfield Vicarage, Co. Down, Aug. 12, 1898. —C. H. Waddell.

Here, I believe, we have to deal, not with two distinct forms, but a single variable one; *i.e.* the plant for which in last year's report (p. 9, paragraph 1) I suggested the name *R. Gelertii*, Frider., var. *Lettii*; and we are much indebted to Mr. Waddell for sending two packets of it in one year. It might perhaps be allowed sub-specific rank, and include a good many of the variously named specimens which have reached the Club from Co. Down in recent years, though not those of the allied but distinct sub-sp. *hibernicus* (of *R. Drejeri*).

Marked characters distinguishing sub-sp. *Lettii* from typical *R. Gelertii* are the following:—Stem and panicle-rachis rather densely clothed with long, fine shining hairs. Prickles remarkably compressed and straight; long, slender, mostly patent or sub-patent. Leaves greenish and very soft beneath, with close shining hairs; often greyish felted under the hairs at first. Panicle usually thickly armed with long, subulate, straight prickles and a good many unequal acicles, bristles and stalked glands; remarkably grey-felted above, usually laxer and so more gradually pyramidal. There is a conspicuous greyish tint on the plant as a whole which recalls *R. micans*, while its very mixed armature, though varying much in degree, compels its removal to a more glandular group than our *Vestiti*. It is much to be desired that its range of distribution in the north east corner of Ireland could be accurately traced.

In Bolston Wood, Herefordshire, the Rev. Augustin Ley finds a bramble somewhat intermediate between *Lettii* and *Gelertii*, but on the whole perhaps nearer to *R. Lettii*.—W.M.R.

R. pyramidalis, Kalt. Ref. No. 108. Shrubbery, Saintfield Vicarage, Co. Down, Aug. 29, 1900.—C. H. Waddell. I suppose an abnormally luxuriant specimen of *R. pyramidalis*, but for that reason neither characteristic nor, in my opinion, suitable for the herbarium.—W.M.R.

R. leucostachys? By road side, Staveley, Westmorland, Aug., 1899.—C. H. Waddell. Yes, *R. leucostachys*.—W.M.R.

R. leucostachys, Schleich.? Near Colwich, Staffordshire, Sep. 26, 1900.—J. E. Bagnall and H. S. Thompson. I cannot think it desirable to distribute the specimens in this cover, as they were collected too late in the season for certain determination. The stem pieces all seem wrong for *leucostachys*, and even the panicles somewhat doubtful.—W.M.R. None distributed, all returned to H.S.T.

R. mucronatus, Blox. var. *nudicaulis* (Rogers), (see Handbook of British Rubi, p. 56). West Cliff, Bournemouth, Hants., 20/8/00.—J. T. Powell. Yes.—W.M.R.

R. cinerosus, Rogers? (1) Ref. No. 474A. Road side, Aughnadarragh, Saintfield, Co. Down, July 14, 1897. (2) Ref. No. 106. Open wood, Rowallane, Saintfield, Co. Down, Aug. 14, 1900. (3) Ref. No. 105. Same loc. as 474A, Aug. 9, 1894.—C. H. Waddell. I think all these sheets, 474A, 106, and 105, go best under *R. mucronatus*, Blox., though more hairy, less glandular and often with thicker foliage than in the type; and so slightly going off from *R. mucronatus* towards *R. pyramidalis*, Kalt. I should not put any of them to my *R. cinerosus*.—W.M.R.

R. raduloides, Rogers. (1) Quarries, Hanham, West Gloucestershire, Aug. 20, 1898. (2) Fox's Woods, Brislington, N. Somerset, July 9, 1896.—J. W. White. Yes.—W.M.R.

R. Drejeri, Jensen. var. *hibernicus*, Rogers. No. 482. Strong form. Open place, Saintfield Vicarage, Co. Down, Aug. 25, 1900.—C. H. Waddell. These specimens look to me more like *Leyanus* than *hibernicus*, but in this condition they can hardly be said to represent either form at all satisfactorily.—W.M.R.

R. Drejeri, sub-sp. *hibernicus*, Rogers. (1) Ref. No. 10. Aghaderg Glebe, P. of Aghaderg, Co. Down, Aug. 11, 1900. (2) Ref. No. 15. Lisnagade, P. of Aghaderg, Co. Down, Aug. 13, 1900.—H. W. Lett. Not exactly my sub-sp. *hibernicus*, as described in Handbook, p. 62, but rather one of the several allied forms sent to the Club in recent years by Canon Lett. (cf. the first note on p. 11 of Report for 1898-1899). As represented in dried specimens only, these forms show an extraordinary range of variation, suggesting the need of most careful differentiation *in the field*.—W.M.R.

R. Drejeri, Jensen. var. *hibernicus*, Rogers, No. 482B. (1) Killaney, Saintfield, Co. Down, Aug. 12, 1893. (2) Wood, Saintfield, Co. Down, Aug. 5, 1895. (3) Weak shade form, Woods, Saintfield, Co. Down, June, 1896.—C. H. Waddell. These specimens are no doubt rightly named, but they are too imperfect to be very characteristic *R. hibernicus*. —W. M. R.

R. Drejeri, Jensen, var. *hibernicus*, Rogers (Fide W. M. R.) Saintfield, Co. Down, Aug., 1895 & Sep., 1894.—C. H. Waddell.

R. radula ? Ref. No. 112. Sunny banks of quarries, Cave Hill, Belfast, Co. Antrim, Aug., 1898.—C. H. Waddell. *R. radula*, Weihe, subsp. *echinatoides*, Rogers. Less glandular than usual.—W. M. R.

R. ——— . Ref. No. 1. In roadside fence, S. of the Lough in Meenan bog, P. of Aghaderg, Co. Down, July 28, 1900.—H. W. Lett. *R. Newbouldii*, Bab.—W. M. R.

R. oigocladus, var. *Newbouldii*, Bab. Ref. No. 9. Aghaderg glebe, P. of Aghaderg, Co. Down, Aug. 11, 1900.—H. W. Lett. I think Canon Lett is right in considering this to be a form of the very variable *R. Newbouldii* of his neighbourhood.—W.M.R.

R. ——— . Ref. No. 2. Mile-hill lane, Ballintaggart, P. of Aghaderg, Co. Down, Aug. 2, 1900.—H. W. Lett. I think certainly best under the plant we are calling *R. Newbouldii*, (Bab.)—W. M. R.

R. ——— . Ref. No. 14, Briclan, P. of Aghaderg, Co. Down, Aug. 11, 1900.—H. W. Lett. Can this also be a form of the variable *R. Newbouldii* of Co. Down ? I am inclined to think so.—W. M. R.

R. rudis, W. and N. (Fide W. M. R.) Hedges, Slinfold, W. Sussex, Aug. 21, 1894.—J. W. White.

R. Griffithianus ? Ref. No. 114. Border of field, Saintfield, Co. Down, Sep., 1893.—C. H. Waddell. Too scrappy for me to name. Do not look as if they could go to my *R. Griffithianus*. W.M.R.

R. Babingtonii, Bell Salt. (1) The Rocks Wood, Uckfield, E. Sussex, 1897. Coll. E. H. Farr. (2) New Lodge, St. Leonard's Forest, Sussex, July 31, 1900.—J. W. White. Yes.—W. M. R.

R. mutabilis Genev. ? (Fide Dr. Focke) Roadside, nr. Storrington, W. Sussex, Aug. 4, 1896 —J. W. White.

R. scaber, W. and N. (Fide W. M. R.) Highbury Wood, Hallatrow, N. Somerset, Aug. 11, 1900.—J. W. White.

R. fuscus, W. and N. Leigh Wood, N. Somerset, Aug. 11, 1899.—J. W. White. Yes.—W. M. R.

R. infecundus, Rogers (1) Bank of the R. Avon at Hanham, W. Gloucester, July 18, 1896. (2) Benthall Edge, Salop, Aug. 1896. Coll. W. H. Painter. (3) Longridge Fell, v.c. 60, July 6, 1898. Coll. J. A. Wheldon.—J. W. White. (1) Yes, most characteristic. (2) I think rightly named, but the specimen is not very characteristic. (3) Yes.—W.M.R.

R. adornatus, P. J. Muell. Holmbush, St. Leonard's Forest, Sussex, July 23, 1900.—J. W. White. Rightly named, I believe, though the broader panicles, on many sheets, are uncharacteristic of our ordinary British form.—W. M. R.

R. ——— . Ref. No. 16. Lisnagade, P. of Aghaderg, Co. Down, Aug. 13, 1900.—H. W. Lett. I think clearly a very strong form of *R. adornatus*, P. J. Muell. though far more leafy in the upper part of the panicle than I have ever seen it in England. A most interesting addition to Co. Down brambles.—W. M. R.

R. ——— . Ref. No. 18. Lisnagade, P. of Aghaderg, Co. Down, Aug. 13, 1900.—H. W. Lett. *R. Koehleri*, W. and N., subsp. *dasyphyllus*, Rogers.—W. M. R.

R. dasyphyllus, Rogers (*R. pallidus*, Bab.), Yate Common, West Gloucestershire, Aug. 15, 1900.—J. W. White. I think undoubtedly not *R. dasyphyllus*, but an exceptionally strong form of my *infecundus* var. of *R. rosaceus*.—W. M. R.

R. Marshalli, F. and R. Pease Pottage, St. Leonard's Forest, W. Sussex, July 30, 1900.—J. W. White. Unmistakeable *R. Marshalli*.—W. M. R.

S. Marshalli, Focke and Rogers (1) Ref. No. 110. Open heath, Aughnadarragh, Saintfield, Co. Down, Aug. 9, 1894. (2) Ref. No. 111. Same loc., July 14, 1897.—C. H. Waddell. The right place for these pieces (110 and 111) may *possibly* be under my var. *semiglaber* of *R. Marshalli*, but they are much too scrappy for satisfactory determination.—W. M. R.

R. viridis, Kalt. Highbury Wood, nr. Hallatrow, N. Somerset, Aug. 8, 1900.—J. W. White. I believe rightly named.—W. M. R.

R. saxicolus ? (1) Ref. No. 115. In open place by road side, Saintfield, Co. Down, Aug., 1895. (2) Ref. No. 116. Roadside, Crossgar, Co. Down, Aug. 6, 1895. (3) Ref. No. 117, open sunny place, Aughnadarragh, Saintfield, Co. Down, July 14, 1897.—C. H. Waddell. (115) I agree with Mr. Waddell in thinking that this is probably *R. saxicolus*, P. J. Muell; but it must be remembered that at present I can only give that name to any plant provisionally. He seems right in putting his *Nos.* 116 and 117 with it.—W. M. R.

R. corylifolius, Sm. Ref. No. 3. Mile-hill lane, Ballintaggart, P. of Aghaderg, Co. Down, Aug. 2, 1900.—H. W. Lett. Yes.—W. M. R.

R. corylifolius, Sm. Ref. No. 7, Aghaderg Glebe, P. of Aghaderg, Co. Down, Aug. 11, 1900.—H. W. Lett. Yes.—W. M. R.

R. corylifolius, Sm. var. *sublustris* (Lees). Parkstone Heights, Dorset, 30/7/00.—J. T. Powell. Yes.—W. M. R.

R. ——— . Ref. No. 6. Mile hill lane, Ballintaggart, P. of Aghaderg, Co. Down, Aug. 2, 1900.—H. W. Lett. *R. corylifolius*, Sm. var. *cyclophyllus*, Lindeb. (or allied form.)—W. M. R.

R, ——— . Ref. No. 5. Mile hill lane, Ballintaggart, P. of Aghaderg, Co. Down, Aug. 2, 1900.—H. W. Lett. Only one panicle sent, and that looks quite barren. A hybrid? —W. M. R.

Poterium muricatum. Shores of Reservoir, Swithland, Leicestershire, Sept. 1900. New Record for v.c. 55.—W. Bell. Yes, *P. muricatum*, Spach., but in too poor a condition to say which of the segregates.—E.S. and C.E.S.

Rosa mollis × *pimpinellifolia* (*R. involuta*, Smith, var.) Near Betty Hill, v.c. 108, W. Sutherland, June 16, 1900. Originally named from these bushes by M. Crépin. A very beautiful rose.—E. S. Marshall. Exactly *R. Sabini*, Woods.—J. G. Baker.

R. canina, L. var. *verticillacantha* (Mérat.) (Fide Crépin, Irish Naturalist, 1898, p. 167). Aughnadarragh, Saintfield, Co. Down, Aug. 25, 1900.—C. H. Waddell.

Pyrus torminalis, Ehrh. Copse at Grove Park, Kent, June 12, 1900.—D. T. Playfair. Apparently a new record for Div. 1 of Hanbury and Marshall's "Flora of Kent," into which this locality falls.

Saxifraga Geum, L. Kerry, Corcaginny, Connor Pass, June, 1900.—H. W. Lett. Agrees very well, I think, with description of var. *elegans*, in Bab. Man. ed. 8, but I don't profess to know these plants.—E. S. Marshall.

S. Geum, L. Root from Ashwood Dale, Derbyshire, July 10, 1890.—J. W. White. No, *S. umbrosa*, L., the Common London Pride, a native of the Alps of S. Europe, of Ireland, and possibly of Yorkshire.—S. T. Dunn.

S. umbrosa, L. Kerry, Corcaginny, Brandon, nr. Cloghan, June, 1900.—H. W. Lett. Is var. *punctata*, Don.—E. S. & C. E. S.

S ——— Moist rocks, Kerry, Corcaginny, Brandon, nr. the top of the mountain, June, 1900.—H. W. Lett. I should call this *S. Sternbergii*.—E. F. Linton.

S. Sternbergii, Willd. Same loc. and date as above.—H. W. Lett. I think right.—E. F. L.

S. hypnoides, *sponhemica*, Gmel. Shady rocks, Kerry, Corcaginny, nr. top of Brandon, June, 1900.—H. W. Lett. I leave this alone ; I don't question it.—E. F. Linton.

Ribes alpinum, L. Hedgerow, Melton, nr. Hull, E. Yorks, v.c. 61, May, 1900.—C. Waterfall. Recorded, with some doubt, in Top. Bot. for v.c. 61.

Sedum dasyphyllum, L. Old walls, Conway, Carnarvonshire, v.c. 49, July, 1900.—C. Waterfall. The great majority of English records for this species are, like Mr. Waterfall's, from old walls ; when, however, it is found on rocks or in any other natural habitat some doubt arises as to its exclusion from our flora. In the few recorded localities of the latter kind there is always some suspicion of introduction as in all other stations in N. Western Europe.—S. T. Dunn.

S. album, L. var. *teretifolium*, Haw. Fishergate Cliffs, W. Sussex, July, 1900.—T. Hilton. Correct. This seems like a native habitat, but the matter can only be decided locally. The species is a widely distributed native of the Continent, on rocks and stony ground, reaching as far as Normandy. It is also considered by Murray to be indigenous in a few localities in the Mendip Hills of Somerset.—S. T. D.

Callitriche hamulata, Kuetz. var. *pedunculata*, DC. Pond, Piltdown, E. Sussex, June, 1900.—T. Hilton. Seems to be correctly named.—E. S. and C. E. S.

Epilobium roseum × *montanum*. Garden Weed at Edgbaston, Warwickshire, Aug. 25, 1900.—H. S. Thompson. These are *all* certainly *E. montanum* × *roseum*, and are well preserved.—E. S. Marshall.

E. obscurum × *parviflorum*. Wey banks between Elstead and Tilford, v.c. 17, Surrey, Sept. 6, 1900.—E. S. Marshall.

Caucalis daucoides, L. S. of Lighthouse, Kingston, W. Sussex, July, 1900.—T. Hilton. Yes.—S. T. Dunn.

Coriandrum sativum, L. Waste ground, West Dock Reservation, Hull, E. Yorks., v.c. 61, Oct. 1900.—C. Waterfall. Correct. This alien probably owes its presence to one of two sources. Either to its use as an ingredient of confectionery or to its importation in corn from the east where it is in some places a common cornfield weed.—S.T.D.

Galium anglicum, Huds. Bet. Seaford and Berwick, E. Sussex, July, 1900. The occurrence of this species in the county is queried in Top. Bot., and the plant does not appear in Arnold's Sussex Flora. First discovered here by the Rev. E. Ellman.

Valerianella rimosa, Bast. Cornfields, Pabo Hill, Carnarvonshire, July, 1900.—C. Waterfall. Correct, and an addition to v.c. 49.—E.S. and C.E.S.

Filago spathulata, Presl. (1) Field near Frettenham, Norfolk, E., with *F. germanica*, Aug. 7, 1900. (2) Field near Little Hautbois, Norfolk, E., Aug. 6, 1900.—C. E. Salmon.

Inula britannica, L. Shore of Cropston Reservoir, Leicester, Aug. 1, 1900. This plant, a native of Germany, first appeared at Cropston in 1894, when it was noticed by the Rev. T. A. Preston. It is now quite naturalized on the margin of the reservoir and has increased in luxuriance. Probably introduced here by water fowl. See B.E.C. reports, 1894, p. 451, and 1895, p. 485.—T. A. Preston and A. B. Jackson.

Matricaria discoidea, L. Casual, waste ground, Birkenhead, Liverpool, v.c. 58, June 17, 1900.—J. A. Wheldon and A. B. Jackson. Correct. Usually, as in this case, in waste ground, but occasionally well established in open turf as on Kew Green. Where a footing has once been gained it seems to spread rapidly to any dry newly broken ground in the neighbourhood. S. T. Dunn.

Artemisia vulgaris, L. var. *coarctata*, Forcell. Hedge bank, Armthorpe, near Doncaster, S. W. Yorks. v.c. 63, May, 1898. —C. Waterfall. These specimens seem hardly extreme enough to pass for the variety.—E.S. and C.E.S.

Petasites albus, L. Original plant from Snuff Mill Lane, Cottingham, E. Yks. Grown in the wild flower garden, East Park, Hull, E. Yks., April, 1900.—C. Waterfall. Though apparently of older standing as a garden plant this species is much less common in a naturalized condition than *Petasites fragrans*. It is a native of wet mountain pastures from Central Europe to the Altai region.—S. T. Dunn.

Senecio viscosus, L. (1) Waste ground on rail siding, Alexandra Dock, E. Hull, v.c. 61, Sep., 1900. (2) Ballast hole, Grosmont, near Whitby, Eskdale, N.E. Yorks., v.c. 62, July, 1897.—C. Waterfall. A new record for v.c. 61, and only doubtfully recorded for v.c. 62 in Top. Bot.

S. squalidus, L. Banks of Bandon River, Co. Cork, Ireland, June, 1900. Coll. P. B. O'Kelly.—D. T. Playfair. Correctly named. A comparatively old inhabitant of Cork, having been known there since the year 1820 (Cyb. Hibern. Ed. II. 188). Its history in Britain is well known. It is probably a native of Sicily, where it grows on volcanic sands. —S. T. Dunn.

S. Jacobæa, L. var. *flosculosus*. (Jord). Coalbackie, near Tongue, v.c. 108, W. Sutherland, 3/8/1900.—E. S. Marshall.

Arctium ———. Woodchester Park, Glos., 8/1900.—H. P. Reader. *A. majus*.—E.S. and C.E.S.

Carduus crispus × *nutans* (*Newbouldi*, H. C. Wats.). Reigate Hill, Surrey, July, 1900.—A. S. Crosfield. I should say certainly *crispus* × *nutans*. It is practically the same as a Kent plant of mine, confirmed by Dr. Focke. Not *acanthoides*, as understood on the Continent.—E. S. Marshall. This will not do for Newbould's and Watson's plant. *That* has the anthodes naked at the base for about ¾-inch, the whole plant more arachnoid, and the anthodes subsolitary, etc. (see Eng. Bot. t. 685 for the true plant). I do not see how Mr. Crosfield's plant differs from *crispus;* it is really nearer to var. *polyanthemos* Godr. of Syme's Eng. Bot. than to var. *litigiosus*, G. and G., which is somewhat like the *nutans* × *crispus*.—A.B.

Mariana lactea, Hill. Originally from Little Weighton, Hort. De Grey St., Hull, E. Yorks., June, 1900.—C. Waterfall. The information regarding these specimens is not readily accessible on Mr. Waterfall's label, but they presumably came from some locality where it was more or less obviously a garden escape. In Northern Europe all writers seem to agree that the species is an introduction. Hooker in his Student's Flora derives it from the Mediterranean region and the Orient. I have seen it growing on the barren sun-baked hills about Perpignan, in S. France, under circumstances that seemed conclusive as to its nativity there. De Candolle has, however, pointed out in his Geographie Botanique that it cannot have been known to the ancients, who would have had a name for so conspicuous a plant, whereas its surviving names are all connected with Christianity. He thinks it may have been introduced from the East by the Crusaders.—S. T. Dunn.

Centaurea Jacea, L. Paddock, Hassocks, E. Sussex, June, 1900.—T. Hilton. Correct. Arnold considers it indigenous in meadows in Sussex; while Watson placed it in his Alien class throughout the whole of Britain. It is undoubtedly native in Normandy and Belgium, and it would be interesting for some local botanist to investigate its claims as a native of Sussex more fully.—S.T.D.

C. nigra, L. var. *decipiens*, Thuill. Arundel, W. Sussex, Aug., 1900.—T. Hilton. No, the radiant form of *nigra* only.—E.S. & C.E.S.

Arnoseris pusilla, Gaertn. Sandy field, Habberley, near Kidderminster, Worcestershire, June, 1897.—E. Cleminshaw. An addition to the county, v.c. 37.

Crepis fœtida, L. Between Seaford and Alfriston, E. Sussex, July, 1900.—T. Hilton. Correct. Native of rocky places in S.E. Europe, further N. and W. almost invariably recorded from cultivated and waste ground. Its presence on shingles in Kent and Sussex is scarcely sufficient guarantee of its nativity in England in view of its foreign distribution.—S. T. Dunn.

Hieracium nigrescens, Willd. var. *gracilifolium*, F. J. Hanb. From rocks two miles N. of Ben Lawers and grown from seed in the garden on poor soil, Bournemouth, 12 June, 1897. It is the same plant as we have issued with this name, Set of British Hieracia, Fasc. III., No. 78.—E. F. Linton.

H. anglicum, Fr. (Fide E. F. Linton). Creag-na-Lochan, Killin, Perth, Aug. 2, 1900.—D. T. Playfair.

Hieracium. No. 3. Basaltic cliffs, 1,100 feet, Derry, Benevenagh, July 19, 1900.—H. W. Lett. *H. anglicum*, f. —E. F. Linton.

H. caledonicum, F. J. Hanb. Ref. No. 2326. Scapa Bay, Mainland, v.c. 111, Orkney, July 17, 1900.—E. S. Marshall. Yes; part of the same gathering as Set of British Hieracia, No. 131.—E. F. Linton.

H. pollinarium, F. J. Hanb. var. *platyphyllum*, Ley. Taren Esgob, Brecon, 12 July, 1897.—Coll. A. Ley. I send these specimens, which Mr. Ley kindly gave me, labelled as he named the plant. They are undoubtedly Mr. Ley's var. *platyphyllum*; but I cordially endorse the opinion Mr. Hanbury has recorded, revising his first impressions, that it cannot be left under *H. pollinarium*.—E. F. Linton.

H. ——— . No. 2. Basaltic cliffs, 1,100 feet, Derry, Benevenagh, July 19, 1900.—H. W. Lett. *H. murorum* var. I expect.—E. F. Linton.

H. ——— . No. 1. Same locality and date as above.—H. W. Lett. *H. vulgatum*; except one spot-leaved plant (returned to collector), which looks very like *H. Gibsoni*. I have seen var. *saxorum* from Ireland.—E.F.L.

H. sparsifolium, Lindeb. Root, Uig, Skye. Hort. Bournemouth, May 30, 1892.—E.F.L.

Arctostaphylos alpina, Spreng. Ben Griam More, v.c. 107, E. Sutherland, 11/7/1900.—E. S. Marshall. New record for the vice-county.

Primula acaulis, L. var. Barton, near Luton, Beds., May 2, 1900.—D. M. Higgins. This is that very variable hybrid, *P. acaulis × veris*.—E.S. and C.E.S.

Anagallis cærulea, Schreb. Weed (2nd year) in garden, near Liskeard, Cornwall, v.c. 2, Sept. 16, 1900.—H. S. Thompson. Most British specimens differ from the Common Pimpernel only in colour. These examples, however, approach the S. European form in their acuminate leaves and sepals longer than the ripe fruit.—S. T. Dunn.

Symphytum officinale, L. var. *patens* (Sibth.) River Esk, Midlothian, June 5, 1900. Colour variety of the type conforming to Sibthorp's description in Fl. Oxon.—F. C. Crawford. As Mr. J. W. White has pointed out in Journ. Bot., 1900, p. 279, the figure in E.B. edit. III., does not represent Sibthorp's *patens*. Prof. I. Bayley Balfour remarks as follows: "The above specimens are from one of the stations mentioned by Boswell Syme whence he had obtained the variety, and I think we may assert they correspond with what he found. Sibthorp in his Flora of Oxford speaks of the plants as the red-flowered Comfrey, and the only other distinctive character he gives is one derived from the calyx. The plant we always have called *patens* here, and which I take it Boswell Syme referred to, has never to my knowledge had blue flowers and one finds the typical *officinale* mixed with plants in which the flower passes into purple. Apart from colour, the hairiness is the only thing given by Hooker as a distinctive mark. This character is never a constant one in the plants about here, and so far as I have been able to give consideration to the matter, I have come to the conclusion that there is no character by which *patens* may be distinguished from *officinale* except by that of colour. I think it is probable that *officinale* is the form which is essentially that of roadsides, whilst *patens* is one of moister localities. With regard to the length of the calyx compared to the corolla-tube, my observations lead me in exactly the same direction as Boswell Syme. There does not seem to be any fixity in the character."

Cuscuta trifolii, Bab. On Rapkins Farm, near Horsham, Sussex, Aug. 10, 1887.—J. W. White. As the Clover Dodder is hardly distinct from the wild *C. Epithymum*, it is not possible to class it as an alien in the same sense as our numerous species which depend everywhere upon man for their presence in England.—S. T. Dunn.

Datura Stramonium, L. (1) Biscot Path, Luton, Beds., Aug. 28, 1900. (2) In a spinney, Eggington, Beds., Nov. 1, 1900.—D. M. Higgins. Its frequent occurrence about villages, etc., is due no doubt to its former wide cultivation for medicinal purposes. Its home is placed by De Candolle in the Caspian region.—S.T.D.

Verbascum pulverulentum × *Thapsus*. Casual, hort. Bournemouth, Aug., 1899. The parent plants were originally introduced years ago from near Norwich. The specimens now sent were part of a gathering from a very fine plant which had the branching habit of *V. pulverulentum*, Vill., but otherwise was fairly intermediate. Apparently it was quite sterile.—E. F. Linton.

Scrophularia umbrosa, Dum. Wannock Glen, Jevington, E. Sussex, Aug., 1900.—T. Hilton. *S. aquatica* only ; bracts not foliaceous.—E.S. and C.E.S.

Euphrasia nemorosa, H. Mart. (1) Near the Sun Oak, St. Leonard's Forest, Sussex, Aug. 1, 1900. (2) Borders of Ball Wood, near Congresbury, N. Somerset, Aug., 1883.—J. W. White. Yes, both *nemorosa*, H. Mart.—F. Townsend.

E. curta, Fries. var. *glabrescens*, Wettst. Carradale, Cantire, Aug. 13, 1898. Coll. A. M. Geldart. Determined by Prof. Wettstein.—H. D. Geldart.

E. Rostkoviana, Hayne and f. *eglandulosa*. Stroma, Caithness, July, 1899. Coll. A. M. Geldart. Determined by Prof. Wettstein.—H. D. Geldart.

E. latifolia, Pursh. Ref. No. 2,399. Skerray, v.c. 108, W. Sutherland, 28/7/1900.—E. S. Marshall.

E. foulaensis, Towns. (1) Ref. No. 2,396. Ben Loyal, v.c. 108.—W. Sutherland, 7/8/1900. Confirmed by Mr. Townsend.—E. S. Marshall. (2) Stroma, Caithness, July 17, 1899. Coll. A. M. Geldart. Determined by Prof. Wettstein.—H. D. Geldart.

Bartsia Odontites, Huds. var. *verna*, Reichb. (1) Grassy roadside, near Burton Constable, E. Yorks, v.c. 61, Sept., 1900. (2) Roadside, Cottingham, near Beverley, E. Yorks, Aug., 1897. (3) Roadside, N. Newbald, near Market Weighton, E. Yorks, v.c. 61, Sep. 1899. (4) Roadside, Kilnsey, near Spurn Head, E. Yorks, v.c. 61, Aug., 1891. (5) Grassy lane, between Brantingham and Wold-dale, near Hull, E. Yorks, v.c. 61, Aug., 1897.—C. Waterfall. All *B. Odontites*, Huds. var. *serotina* (Reichb).—E. F. Linton.

Mentha alopecuroides, Hull. Hort., Clifton ; root from Essex. Aug. 6, 1900.—J. W. White. '*alopecuroides*'.—W. R. Linton.

M. crispa, Hooker. Hort. Clifton ; root from Devonshire, Aug. 5, 1900.—J. W. White. '*crispa*'.—W.R.L.

M. piperita, L. Bank of the Chew, at Compton Dando, N. Somerset, Aug. 28, 1900.—J. W. White. var. *officinalis*, Hull.—E.S. and C.E.S.

M. sativa, L. var. *rivalis*, Lond. Cat. Nutfield Marsh Green, Surrey, Sep. 19, 1900.—C. E. Salmon.

Thymus Serpyllum, Fr. var. *prostratum*, Horn. Ref. No. 2,444. Near Sandwick, Mainland, v.c. 111, Orkney, 16/7/1900. —E. S. Marshall.

Calamintha sylvatica, Bromf. Apes Down, Isle of Wight, Aug. 24, 1900.—C. E. Salmon.

Melissa officinalis, L. Roadside at Sandplace, Cornwall, Sep. 20, 1900. New to v.c. 2.—H. S. Thompson.

Stachys palustris, L. × *sylvatica* (*ambigua*, Sm.) Stennis, Orkney, Aug. 25, 1900.—F. C. Crawford. No, *S. palustris*; leaves narrow, sessile or sub-sessile, and base not cordate.—E.S. and C.E.S. Certainly not *ambigua*. I found this same hispid f. or var. of *S. palustris* plentifully in Mainland, Orkney, last July (I also saw *ambigua* in one spot).—E. S. Marshall.

S. alpina, L. Open woodland, near North Nibley, West Gloucestershire, July 7, 1900.—J. W. White. Very beautiful examples of this interesting plant.

Teucrium Chamædrys, L. Wall, Camber Castle, Rye, E. Sussex, July, 1900.—T. Hilton. Interesting to find the plant (" known in Sherard's time ") still existing here and flowering in some quantity.

Plantago arenaria, Waldst. and Kit. Waste ground, West Dock Reservation, Hull, E. Yorks., v.c. 61, Sept., 1900.—C. Waterfall. Correct.—S. T. Dunn.

Amaranthus retroflexus, L., and *albus*, L. Tripcock Ness, W. Kent, Aug. 18, 1900.—A. H. Wolley Dod. Correct.—S.T.D.

Chenopodium polyspermum, L. var. *spicatum* (Moq.). Cult. field, near Merrow Common, Surrey, Oct. 8, 1900.—C. E. Salmon.

C. polyspermum, L. var. *cymosum* (Moq.). (1) Waste ground, Woodland Road, Leicester, v.c. 55, Aug., 1900. Rather rare in this county and only previously recorded in two localities.—W. Bell. (2) Near Moorden Farm, near Penshurst Station, W. Kent, Sept. 12, 1900.—C. E. Salmon.

C. ficifolium, Sm. Hodshrove Farm, E. Sussex, Aug., 1900.—T. Hilton. Correct. Of all our *Chenopodia*, the most strictly confined to waste places and rubbish heaps, in which it is becoming common about London.—S. T. Dunn.

C. album, L. var. Waste ground, West Dock Reservation, Hull, E. Yorks., v.c. 61, Sept., 1900.—C. Waterfall. I should like to see more of this in a more perfect condition. It appears to be similar to a form which I have seen recently in several parts of England, on rubbish heaps. I have not seen it described, nor have I seen it in Herbaria. I have provisionally named it var. *augustifolia*, but should not be surprised to find it a distinct sub-species.—G. C. Druce.

Atriplex littoralis, L. var. *serrata*, Moq. Barnharrock, Wigtown, N.B., Aug., 1900. Coll. E. K. Higgins.—D. M. Higgins. Certainly not. It is a form of *patula*, I presume.—G. C. Druce.

Salicornia herbacea, L. var. *pusilla* (Woods). Ref. No. 2510. Hayling Island, v.c. 11, S. Hants, 13/9/1900.—E. S. Marshall. See Journ. Bot., 1901, p. 145.

S. appressa, Dum. (1) Cuckmere Haven, E. Sussex, Sept., 1900.—T. Hilton. (2) Hayling Island, Hants., Sept., 1900.—T. Hilton. (3) Keyhaven, S. Hants., Sept. 24, 1900.—D. T. Playfair. (1) Likely right; although not so dense and compact in growth, nor yet so "fan-shaped," as I have found it in E. Kent. (2) More diffuse and larger than any of my Kent plants; but may be correct. I do not know its limits of variation. (3) I should say, certainly correct; the smaller specimens are very like mine from E. Kent.—E. S. Marshall. New Records for E. Sussex (14), and S. Hants. (11).

Polygonum aviculare, L. var. *vulgatum*, Syme. (1) Waste ground, Newland, Hull, E. Yorks., v.c. 61, Aug., 1900. (2) Waste ground on roadside, Beverley Road, near Hull, Aug., 1898.—C. Waterfall. Hooker, 3rd edit., ignores *P. vulgatum* as indistinguishable from *P. agrestinum*. I should call this *P. agrestinum*.—W. R. Linton.

P. aviculare, L. var. *agrestinum*, Jord. (1) Waste ground in meadow, near Rhos-on-Sea, Carnarvonshire, v.c. 49, July, 1900.—C. Waterfall. (2) Waste ground, Arram, near Beverley, E. Yorks., v.c. 61, Aug., 1900.—C. Waterfall. (3) Tripcock Ness, W. Kent, Aug. 14, 1900.—A. H. Wolley Dod. Yes, all *agrestinum*.—W.R.L.

P. rurivagum (Jord)? Farm yard, Hartlebury Common, Worcestershire, Aug. 26, 1900. With curious mealy leaves.—H. S. Thompson. Will do very well for *rurivagum*. The "meal" is the mycelium of a mildew, *Erysiphe Polygoni*, D.C.—E.S. and C.E.S.

P. minus, Huds. Ditches, Amberley, W. Sussex, Sept., 1900.—T. Hilton. Very like *P. mite* in *foliage;* and very luxuriant for *P. minus*. But the fruit is quite *minus;* barely half the size of *mite* seeds, black, highly polished; not dull, brownish, slightly rough. I think that it is rightly named. The situation may account for its remarkable luxuriance.—E. S. Marshall.

P. Persicaria, L. var. *elatum*, Gren. and Godr. Waste ground, Alexandra Dock, East Hull, E. Yorks., v.c. 61, Sept., 1900.—C. Waterfall. Agrees fairly well with a plant from Rev. A. Ley (Huntsham, Herefordshire) in my herbarium, so named; but the leaves are smaller. I do not think that it is really separable as a variety.—E.S.M.

P. lapathifolium, L. var. *nodosum*, Reich. Waste ground, West Dock Reservation, Hull, E. Yorks., v.c. 61, Sept., 1900.—C. Waterfall. I should call this *P. lapathifolium*, L.; it is not *P. maculatum*, Trimen and Dyer, which I believe (though I am not *sure* about it) to equal *P. nodosum*, Reichb.—E.S.M.

P. lapathifolium, L. var. *nodosum*, Reich. Waste ground, West Dock Reservation, Hull, E. Yorks., v.c. 61, Sept., 1900. —C. Waterfall. This I consider to be a form (or rather a state) of *P. Persicaria*, L. It is not *P. maculatum*, Trimen and Dyer, which has glandular peduncles. Nor does it agree with description of *P. biforme* (? *P. nodosum*, Pers.) in our handbooks. —E.S.M.

Rumex limosus, Thuill. (1) Near Wroxham Broad, E. Norfolk, Aug. 9, 1900.—C. E. Salmon. (2) R. Ouse, S. of Lewes, E. Sussex, Aug., 1900.—T. Hilton. No personal authority for E. Sussex, v.c. 14, in Top. Bot , and is new to Div. IV. of Arnold's Sussex Flora.

R. ———. By lake, Hawkesyard, Staffs., Aug., 1900. This Dock is very like *conglomeratus*, but pedicel joints are very low down, as in *sanguineus*.—H. P. Reader. This Dock is intermediate, as Mr. Reader states, between *conglomeratus* and *sanguineus*. I have compared it with authentic material of *R. conglomeratus* var. *Borreri*, Trimen in Journ. Bot. XIV. p. 310, a plant coming from Burgess Hill, described as intermediate between *nemorosus* and *conglomeratus*, but the whorls in var. *Borreri* are more leafless and it is much more strongly tri-tuberculate. It therefore does not agree with this variety. The only other British named variety of *conglomeratus* with which I am acquainted is var. *subsimplex*, Trimen in Journ. Bot. XV. p. 134. As may be inferred from the name, this is a subsimple plant and does not agree with Mr. Reader's specimens. The following is an extract (in translation) from a paper by Prof. C. Haussknecht in Mitteil. der Geog. Gesellschaft, III. p. 73, on two forms of a hybrid between *R. conglomeratus* and *R. sanguineus* to which he has given the name

R. Ruhmeri: "Two forms of this hybrid lie before me. One has the habit of *R. sanguineus*, with erecto-patent short branches, whose few-flowered whorls are leafy almost to the apex. Flowers nearly all sterile, and easily falling off; mature fruits occur only very sparsely. and their inner fruiting sepals have entire margins and roundish-oblong unequally developed tubercles. Collected near Löbitz, near Osterfeld, and near Zeutsch. The other form, observed between Zöbschen and Unterkaka near Osterfeld is much taller, with many stems, with much elongated more flexuous erecto-patent branches, leafy to about two-thirds their length. Whorls few-flowered, some of them quite sterile, others with 1-4 mature fruits. Inner fruiting sepals with 2 rather small and 1 rather large broadish wart; nuts apparently well-developed, but for the most part empty. I observed similar forms also on the Ettersberg. On account of such forms as the above, the two species were previously united by many botanists." I doubt Mr. Reader's plant being either of the forms of the hybrid—the fruit is too good for one thing. It is a very interesting plant and I very much doubt if there is a published name that will exactly fit it.—E. G. Baker.

Euphorbia pilosa, L. Border of wood, Prior Park, Bath, June 6, 1898.—J. W. White. A very beautiful set of this rare spurge and most carefully dried.

Mercurialis annua, L. var. *ambigua*, L. Goldstone Bottom, Hove, E. Sussex, Oct., 1900.—T. Hilton. New to Div. III. of Arnold's Sussex Flora.

Urtica dioica, L. var. *augustifolia*, Blytt. (1) Chalk pit, Stanmer Park, E. Sussex, 1900. (2) Polegate, roadside, E. Sussex, Aug., 1900.—T. Hilton. In both gatherings the leaves are narrower than usual, but are not of the shape of those of Blytt's plant.—A.B. and E.S. and C.E.S.

Betula nana, L. N.E. base of Ben Loyal, v.c. 108, W. Sutherland, 7/8/1900.—E. S. Marshall.

B. alpestris, Fries! (*B. nana* [male] × *pubescens* [female], probably). Ref. No. 2449. N.E. base of Ben Loyal, v.c. 108, W. Sutherland, at 800 feet, with parents, 7/8/1900.—E. S. Marshall. An addition to the British Flora (see Journ. Bot., 1901, p. 271),

Salix cinerea? Hedge at Cofton, Worcestershire, May 26, 1900.—H. S. Thompson. Is *S. triandra*, L.—E. F. Linton.

S. Arbuscula, L. (Fide E. F. Linton). Cliffs above Lochan na Lairag, Killin, Perth, Aug. 2, 1900.—D. T. Playfair.

S. reticulata, L. Creag na Lochan, Killin, Perth, Aug. 2, 1900.—D. T. Playfair. Right.—E.F.L.

Populus canescens, Sm. Corston, N. Somerset, male fl., Feb., 1894; female fl., March, 1897; leaves, July, 1896.—J. W. White. I think correct; the 2-4 partite stigma and the strongly ciliated catkin-scales, and also the less flattened petioles, are indicative of this species; it is the form nearest to *P. tremula* and would be more readily recognized in the field than in the herbarium.—J. E. Bagnall. Only doubtfully recorded for the county in Murray's Flora of Somerset.

Crocus vernus, All. Near Nottingham, April, 1886. Coll. J. Sellar.—D. T. Playfair. Probably not really a native British plant. Its home is in the meadows of S. and Central Europe. In N. France, Belgium, and Holland it is absent as a native, and in England also seems to be a relic of cultivation. —S. T. Dunn.

Juncus biglumis, L. Side of rill, Creag na Lochan, Killin, Perth, Aug. 2, 1900.—D. T. Playfair.

Aram italicum, Mill. Cuckoo Lane, Jersey, May 31, 1893. —J. W. White. In the determination of varieties or of critical species, it is impossible to pronounce on detached portions of the plants. Possibly the leaves may be taken from two different plants to show variation, and the fruit from a third. The whole plant should be gathered and pressed and if a portion accompanies the specimen, it should be stated whether it be a portion of the same plant or if another plant. Some of the leaves of the specimens sent simulate those of my *A. italicum neglectum*.—F. Townsend.

Potamogeton coloratus, Hornem. Long moss, Selkirk, N.B., Aug. 11, 1898. Coll. P. M. Playfair.—D. T. Playfair. Correct.—A.B.

P. ———. Still water, Down, River Bann, Corbett, close to "breast" of dam, July 13, 1900.—H. W. Lett. This is a *natans* form, which equals *P. polygonifolius*, var. *linearis*. Syme.—A.B.

P. pusillus, var. *tenuissimus*, M. and K. In pond, Rowallane, Saintfield, Co. Down, Aug. 14, 1900.—C. H. Waddell. Yes.—A.B.

P. trichoides, Cham. Ditch, Iford, E. Sussex, July, 1900. —T. Hilton. This is var. *Trimmeri*, Casp.—A.B.

P. interruptus, Kit. (1) Out of canal near Market Weighton, E. Yorks., v.c. 61, Aug., 1897. (2) Dyke on roadside, near Marfleet, Hull, E. Yorks., v.c. 61, Oct., 1898.—C. Waterfall. Probably correct, but useless to keep as specimens without fruit.—A.B.

Ruppia rostellata, Koch. Ditch near Lewes, E. Sussex, July, 1900.—T. Hilton. New to Div. IV. of Arnold's Sussex Flora.

Cyperus fuscus, L. Peaty valley below Weston-in-Gordano, N. Somerset, Sept. 27, 1900.—J. W. White. A beautiful series of the plant from N. Somerset, from which county it was recorded in Journ. Bot. 1900, p. 446. These specimens are unusually tall and fine; similarly luxuriant plants, however, occur in the Kew Herb, labelled "Hillbrook Meadow, Little Chelsea. Coll. Stevens, Sept., 1847."—E.S. and C.E.S.

Scirpus cernuus, Vahl, var. *pygmaeus* (Kunth). Carradale, Cantire, Aug. 28, 1898. Coll. A. M. Geldart.—H. D. Geldart. The name *pygmaeus* cannot be used for the present plant, as Kunth intended by it identically the *Scirpus cernuus* of Vahl, which Kunth himself quotes (Enum. Pl. II. p. 191) as a synonym. Apparently the proper name for the present plant —which, however, can scarcely be considered anything more than a form—is var. *monostachys*, Hook. Stud. Fl. 400 (1870). —C. B. Clarke.

Carex chordorrhiza, L. Altnaharra, W. Sutherland, v.c. 108, 5/6/1900.—E. S. Marshall. A fine series of this rare sedge, which is figured and described for the first time as a British plant, from this locality, in Journ. Bot. 1898, p. 73.

C. teretiuscula, Good, var. *Ehrhartiana*, Hoppe. (1) Sutton Park, Warwick, Birmingham, v.c. 38, June, 1898.—E. Cleminshaw. (2) Groby Pool, Leicester, July, 1900.—A. B. Jackson. (3) Luffness, E. Lothian, July 10, 1900.—F. C. Crawford. (1) Not tufted enough to be var. *Ehrhartiana*.—E. F. Linton. (2) The *Carex* collected by Mr. Jackson at Groby Pool is, I think, identical with that I find in Sutton Park, Warwickshire, and which I named *C. teretiuscula* Good. var. *Ehrhartiana*, Hoppe. Mr. Jackson's specimens are badly selected as they do not show the habit of growth, but Mr. Mott in his "Flora of Leicestershire," p. 166, speaking of this Groby Pool plant says:—"This sedge grows in swampy meadows by Groby Pool, in large tufts with numerous stems, and seems to approach the variety *Ehrhartiana*, the figure of which, however, in 'English Botany' does not agree with the description."

This is exactly the growth of the Sutton plant when growing near or in water, but when the surroundings become less humid (as is the case at Sutton, owing to the lowering of the pool level for municipal purposes), then the plant becomes scattered in growth and assumes the form of ordinary *C. teretiuscula*.

The other character by which the type and variety are separated is that of the upper portion of the flowering stem, this being in type trigonous, in variety triquetrous; so far as my own experience serves there is no real difference between the upper portion of the flower-stem of the Sutton plant and that of ordinary *C. teretiuscula*, and I notice that this is also the case with the Groby Pool plant.

Further I may say that living plants were sent from Sutton to the Rev. E. F. Linton; these, I believe, he grew in his ponds at home for two seasons, and found as I have stated, that the plant when deprived of excessive humidity reverted to typical *C. teretiuscula*; and I believe I am correct in saying that my specimens were submitted to a continental expert who pronounced them to be merely a state of *C. teretiuscula*. So that I think that the Groby Pool plant as well as the Sutton Park plant are mere states and not varieties.

The above remarks merely apply to the Warwickshire and Leicestershire plants; it would be presumptuous on my part to say anything on the plant that used to grow near Manchester, that is described as having triquetrous stems, figured by Syme as triangular with hollow sides; the plants I speak of have, as I think, triangular stems throughout and differ from genuine *teretiuscula* merely in their more tufted habit, but as I said the alteration of surroundings seems to cause the plants to become scattered instead of tufted in habit.

I find it still in Sutton Park at Long Moor Mill Pool, where the conditions have not been altered by drainage, still showing the same tufted habit, but I have not been able to see even there any real difference in the flowering stem character. —J. E. Bagnall.

(3). As bearing out the above remarks of Mr. Bagnall, Mr. Crawford wrote as follows with regard to his specimens: "Luffness is very flat and marshy, and I noticed that in the drier parts all the specimens were single, but where the plants were on the edges of pools and in much wetter situations they were in tufts."

The whole of the above material was submitted to the Rev. E. F. Linton, who reported:—"Mr. Bagnall kindly investigated the Sutton Park var. *Ehrhartiana* for me and supplied me a root; I understood from him that in a dry season (or under drainage?) the supposed "*Ehrhartiana*" relapsed into *C. teretiuscula;* certainly my plant proved this species and no variety.

The description of var. *Ehrhartiana* contains no feature of varietal importance; and I suspect that the more tufted specimens with more compound heads, whether from Birmingham or E. Lothian, represent the variety correctly, only I should call it a state.

C. muricata, L. var. *virens*, Koch. By the railway under Sneyd Park, Clifton, July 1, 1900.—J. W. White. This, I believe, beautifully represents *Carex Leersii*, F. Schultz. It is much finer than I have seen it in Surrey or Kent. The fruit and glumes are a good deal shorter and broader that in *C. muricata*, L. (*contigua*, Hoppe); it is Syme's var. *pseudodivulsa*.

"*C. Virens*, Koch est inextricabilis!" Kükenthall in litt., 1898.—E. S. Marshall.

C. ovalis, Good.? Bog at source of R. Tone, W. Somerset, v.c. 5, July, 1898.—H. S. Thompson. *C. ovalis*, var. *ferruginea*, Döll. (Rhenisch. Fl. 1843).—A.B.

C. Hudsonii, Ar. Benn. (1) Edge of ditch, Marfleet, near Hull, E. Yorks., v.c. 61, June, 1897. (2) Damp moorland, Goole Moor, S.W. Yks., v.c. 63, June, 1898. (3) Ditch bank, near Hornsea Mere, E. Yks., v.c. 61, May, 1900.—C. Waterfall. (1) No, *C. acuta*. L. for which there is no personal authority in Top. Bot. for v.c. 61. (2) Is *C. Goodenowii*, J. Gay. (3) No. *C. acuta*. L.—A.B.

C. aquatilis, Wahl. (var. or form with cuspidate or acuminate glumes). Ref. No. 2383. Wick River, v.c. 109. Caithness. 28/6/1900.—E. S. Marshall.

C. aquatilis, Wahlenb. var. *virescens*, Anders. Kenmure Holms, Loch Ken, Kirkcudbrightshire, Aug. 8, 1899.—D. T. Playfair. Glumes too long for *virescens*; is between that and *elatior*.—A.B.

C. aquatilis, Wahlenb. var. *elatior*, Bab. Same loc. as above, July, 1900. Coll. J. McAndrew.—D. T. Playfair. Yes.—A.B.

C. aquatilis × *salina* var. *Kattegatensis* (*ad aquatilem vergens*). Ref. No. 2366. Wick River, v.c. 109. Caithness. 28/6/1900. "I consider it *C. aquatilis* × *salina* var. *Kattegatensis*, but nearer the first named by its more numerous sessile spikelets." Pfarrer G. Kükenthal in litt. Mr. A. Bennett agrees to this. —E. S. Marshall.

C. salina, Wahl. var. *Kattegatensis* (Fr.). Ref. No. 2386. Wick River, v.c. 109. Caithness, 28/6/1900.—E. S. Marshall, *C. magellanica*, Lam. Sphagnum bog, Flanchlarg, Glencairn. Dumfries, July 18, 1898.—D. T. Playfair. Yes.—A.B.

C. montana, L. (1) Chailey Common, E. Sussex, May, 1900.—T. Hilton. Discovered here 3 or 4 years ago, and new to Div. IV. of Arnold's Sussex Flora. (2) Bewdley, Worcestershire, v.c. 37, May 28, 1898. E. Cleminshaw.

C. panicea, L. var. *tumidula*, Læst. Ref. No. 2380. Altnaharra, v.c., 108. W. Sutherland, 7/7/1900.—E. S. Marshall.

C. Hornschuchiana × *lepidocarpa*. Ref. No. 2382. Tongue, v.c., 108. W. Sutherland. 3/7/1900. Confirmed by Kükenthal.—E. S. Marshall.

C. Hornschuchiana × *Œderi* var. *œdocarpa*. Ref. No. 2381. Altnaharra, v.c. 108. W. Sutherland, 7/7/1900. Confirmed by Kükenthal.—E.S. Marshall.

C. flava, L. var. Stroma, Caithness, June 30, 1899. Coll. A. M. Geldart.—H. D. Geldart. This seemed to match very well a sheet in our Herb. labelled, "*C. chrysites*, L. (= *C. flava*, L. var. *cyperoides* Marsson). Between Lytham and St Anne's, v.c. 60, 6/8/1895.—E. S. Marshall." On submitting Mr. Geldart's specimens to Mr. Marshall, asking if the two plants were identical, Mr. Marshall replied, "This is *C. Oederi*, Retz., I believe the small form called var. *pygmæa*, And. *C. chrysites* Link is a MS. name only. Var. *cyperoides* Marsson was published as a var. of *C. Oederi* (regarded by Marsson, practically, as a subsp. B. of *C. flava*). L. H. Bailey has here caused confusion."—E.S. and C.E.S.

Panicum crus-galli, L. Fishersgate, W. Sussex, Sept., 1900.—T. Hilton. A weed of cultivated ground over the whole world. It becomes more and more dependent upon human aid as it extends northwards in Europe, and in Britain, in the writer's experience, it is always found in wet rubbishy or cultivated land and never along roadside ditches as in warmer countries.—S. T. Dunn.

Setaria glauca, Beauv. (1) Waste ground, West Dock Reservation, Hull, E. Yorks., v.c. 61, Oct., 1900.—C. Waterfall. (2) Waste grounds, Shortlands, Kent, Sept. 8, 1900.—D. T. Playfair. (3) Tripcock Ness, W. Kent, Aug. 18, 1900.—A. H. Wolley Dod. All correctly named.—S.T.D.

Spartina Townsendi, H. and J. Groves. Hayling Island, Sept., 1900.—E. S. Marshall. T. Hilton. Correct.—H. and J. Groves. New to Div. VIII. of Townsend's Flora of Hants.

Phalaris arundinacea, L. var. *picta*, L. Wick River, v.c. 109, Caithness, 28/6/1900.—E. S. Marshall.

Anthoxanthum Puellii. Sandy ground, Hawkesyard, Staffs., 7/1900.—H. P. Reader. *A. Puellii* can be distinguished from *A. odoratum* by the relative length of its barren and fertile glumes. It is not safe to rely on the character supplied by its branching as, though it is usually much branched and *A. odoratum* not at all, continental specimens occur agreeing generally with the latter but distinctly branched. The length of its awns also must not be lightly used as a guide, as long-awned *A. odoratum* is not uncommon in England in poor sandy ground. Mr. E. S. Salmon has pointed out to me that the split barren pale sometimes ascribed to *A. Puellii* (as in Trimen's fig. Journ. Bot. 1875, t. 157) does not naturally occur in either species. Both have, however, a hyaline line beneath the awn from the point of its insertion to the apex of the pale and due presumably to the pressure of the awn during development. The pale usually splits along this line if handled. The present specimens are correctly named.—S. T. Dunn.

Alopecurus ———. By Trent, Armitage, Staffs., June, 1900.—H. P. Reader. Apparently *geniculatus*, but glumes unusually (1/6 in.) long.—E.S. and C.E.S. Seems to be a form of *A. geniculatus* with glumes very like those of *A. bulbosus*. —E. F. Linton. This is the plant referred to as *Alopecurus hybridus*, Wimmer (*A. pratensi-geniculatus*, Wichura), by Mr. A. B. Jackson in Journ. Bot. 1901, p. 234.

Agrostis vulgaris, With., var. *pumila*, L. (1) Sandy common, near Lake Bodorgan, Anglesey, v.c. 52, June 30, 1900. (2) Dry moorland pastures above Colwyn Bay, Denbighshire, v.c. 50, July, 1900.—C. Waterfall. As has been pointed out before, *A. pumila* Linn. is nothing more than *A. vulgaris* dwarfed by the Stinking Smut (*Tilletia separata*, Kunze).—E.S. and C.E.S.

Aira caryophyllea, L. var. *multicaulis*, Dum. (1) Dry banks on moorland roads, above Colwyn Bay, Denbighshire, v.c. 50, July, 1900.—C. Waterfall. (2) Dry ditch, Great Malvern Common, Worcestershire, v.c. 37, July, 1898.—C. Waterfall. (3) Sandy field, near Sandown, Isle of Wight, June, 1900.—A. B. Jackson. (4) St. Aubins, Jersey, June 8, 1897.—J. W. White. The specimens well match a gathering so named by Hackel and distributed to members last year.—E.S. and C.E.S.

Deschampsia discolor, R. and S. Waste ground, Lindholme, Hatfield Chase, near Thorne, W. Yorks., v.c. 63, July, 1899.—C. Waterfall. No; *D. flexuosa*, Trin.—E.S. and C.E.S.

Poa bulbosa, L. South Denes, Great Yarmouth, Norfolk, May 30, 1895. Coll. G. H. Harris. The locality for this on the South Denes at Yarmouth is fast getting spoiled; it does not flower every year.—H. D. Geldart.

P. compressa, L. Rough pasture near Rudgwick, W. Sussex, Aug. 7, 1895.—J. W. White. Queried in Top. Bot. for W. Sussex, though recorded in Arnold's Sussex Flora from one locality in that vice-county.

Festuca elatior × *Lolium perenne*. By the "Pad," Old Shoreham, W. Sussex, June, 1900.—T. Hilton. Correct. —E.S. and C.E.S.

Bromus commutatus ? In dry pasture, Rathfriland, Co. Down, July 14, 1900.—C. H. Waddell. Most of the specimens are *B. racemosus*, L., the remainder are B. *mollis*, L.—E. F. Linton. Noted on labels.

B. commutatus, Schrad, ×*Lolium perenne*, L. nov. hybr. Avon Meadows, Burton, near Christchurch, S. Hants., not many yards from R Avon, July 9th, 1900. This hybrid was abundant in a small depression and would be inundated with every flood. The whole mass of grass was lain, either by the flowing of water or weighed down by its own luxuriance ; I hope by cultivation to test whether the hybrid is naturally decumbent.—E. F. Linton.

B. secalinus, L. var. *velutinus*, Schrad. Stanmer Park, E. Sussex, 1900.—T. Hilton. Confirmed by E. F. Linton.

Lolium ———. Hawkesyard, Staffs., 7/1900.—H. P. Reader. *L. italicum*, Braun. ; wrongly, I think, placed as a variety under *L. perenne*, L.—E. F. Linton.

Agropyron acutum, Roem. and Schult. (1) Sea sands on pebbly beach, between Llandulas and Llysfaen, Denbighshire, v.c. 50, July, 1900. (2) Sandy hedgebank on coast, Deganwy, Carnarvonshire, v.c. 49, July, 1900. (3) Sea sands on coast, Spurn Head, E. Yorks., v.c. 61, Aug., 1897. (4) Sea sands, The Warren, Llandudno, Carnarvonshire, v.c. 49, July, 1900.—C. Waterfall. All *A. junceum*, Beauv. Teste Hackel.—G. C. Druce. A new record for Denbighshire, v.c. 50.

Lastræa cristata, Presl. Near Whitesley, abundant, E. Norfolk, July 28, 1900.—A. Bennett and C. E. Salmon.

Azolla Caroliniana, Willd. Alien. Introduced probably from Canada. On pond in private grounds, Hayes Place, Kent, July, 1900. This made its appearance in the autumn of 1899 as a few small patches floating on the surface of the pond, having been in all probability introduced from Canada with some water-lily roots. It spread during the spring of 1900 with great rapidity till in the early summer it had entirely covered the surface of the water with a beautiful thick moss-like carpet varying in tint from a bright green to a distinct red. This *Azolla* is well figured and described in Britton and Brown's Illus. Fl. of Northern U.S., Canada and Brit. Possessions, Vol. 1, p. 35.—D. T. Playfair. Apparently the first record of its naturalization in Europe. It is an annual cryptogam, whose megaspores float at the time of fertilization and are firmly attached to other floating matter by means of the barbed hairs on the *massulæ*. There can be little doubt that their adhesion to the water-lilies, mentioned by the contributor as imported from Canada and grown in the same pond, was the means of their introduction.—S. T. Dunn.

Lychnothamnus stelliger, Braun. Martham Broad, Norfolk, E., abundant, July 27, 1900.—A. Bennett and C. E. Salmon.

SUPPLEMENT.

Stellaria umbrosa, Opiz. Pirniss Wood, Balmuto, Fife, 6/1876. Coll. J. T. Syme.—A. Bennett. A specimen of this (see Report 1898-99, *p.* 6) was submitted to the Rev. W. R. Linton, who reported; "*S. media*, var. *major*, Koch (typical)."

Rubus ———. Ref. No. 13. Near Inverneil, Cantire, Aug. 22, 1897.—C. E. Salmon. See Report 1897-98, *p.* 8. Of this Bramble, the Rev. W. Moyle Rogers now writes:—"I now believe this to be a form of var. *sertiflorus* (P. J. Muell), making some approach towards *anglicanus*; an approach which is less apparent in some other Scotch specimens from Dumbarton, Argyle and W. Perth. Rev. A. Ley, who has *sertiflorus* growing in his own parish and has known it longer and more intimately than any of us, agrees with me in this."

Pyrus Aria, differing towards *P. latifolia*, Syme. From a tree in Nightingale Valley, Clifton, Bristol mentioned in White's Flora of Bristol, *p.* 178, May, 1892.—Mrs. Lomax. See Report 1892-3 *p.* 8. Certainly *P. Aria*, var., but I do not see the approach to *P. latifolia.*—A. Ley.

P. scandica, Syme? Glen Easan Biorach, Loch Ranza, Arran. v.c. 100, July 2, 1895.—A. Somerville. Yes.—E. F. Linton. Yes, *P. Scandica* of Syme. Ripe fruit *oblong*; smaller than in the ordinary *planted* tree called *P. Scandica.*—A. Ley.

P. fennica, Syme? Gorge off Glen Catacol, Arran. v.c. 100, Aug. 20, 1895.—A. Somerville. Yes, *Pyrus fennica* of Syme: "ripe fruit somewhat larger than that of the *P. Scandica* of Arran; *oblong*, not *round*." Rev. D. Landsborough, in litt. —A. Ley.

Sedum rupestre, L. Dry bank on roadside, Wallis Down, S. Hants. v.c. 11, July, 1899.—C. Waterfall. This plant corrected to *S. reflexum*, L. in the last report, the Rev. E. F. Linton now identifies as *S. reflexum*, var. *albescens*, Haw. —E.S. and C.E.S.

Arum italicum. Lane, St. Martins, Guernsey, June, 1894. —J. D. Gray. *A. italicum*, Mill. var. *genuinum.*—F. Townsend.

SUBSCRIPTIONS, 1900.

	£	s.	d.
Bell, W.	0	5	0
Bostock, E. D.	0	5	0
Cotton Mrs	0	5	0
Crawford, F. C.	0	5	0
Crosfield, A. J.	0	5	0
Druce, G. C.	0	5	0
Dunn, S. T.	0	10	0
Ewing, P.	0	5	0
Geldart, H. D.	0	5	0
Goss, H.	0	5	0
Goode, G.	0	5	0
Gregory, Mrs. E. S.	0	5	0
*Griffith, J. E.	0	0	0
Hayes, A.	0	5	0
Higgins, Miss	0	5	0
Hilton, T.	0	5	0
Hume, A. O., C.B.	0	5	0
Humphreys, J.	0	5	0
Jackson, A. B.	0	10	0
Lett, Rev. Canon	0	5	0
Marshall, Rev. E. S.	0	5	0
Mennell, H. T.	0	5	0
Overton, Mrs.	0	5	0
Playfair, Dr.	0	5	0
Powell, J. T.	0	5	0
Praeger, R. Ll.	0	5	0
Reader, Rev. H. P.	0	5	0
Salmon E. S.	0	10	0
Salmon, C. E.	0	10	0
Scott Elliot, Prof. G. F.	0	5	0
Somerville, A.	0	5	0
Standen, R. S.	0	5	0
Thompson, H. S.	0	5	0
Waddell, Rev. C. H.	0	5	0
Waterfall, C.	0	5	0
Wolley Dod, Major A. H.	0	5	0
Woodhead, T.	0	5	0
	£10	0	0

*5/- for 1900 arrived too late to be included in the statement for that year.

TREASURER'S BALANCE SHEET, 1900.

Receipts.

	£	s.	d.
Balance from 1889	5	12	2
Subscriptions, 1900	10	0	0
	£15	12	2

Expenditure.

	£	s.	d.	£	s.	d
Printing—						
Morland & Henson, 16th Report	6	0	0			
,, ,, Desiderata List	2	17	6			
,, ,, Circular ...	0	3	6			
				9	1	0
Working Expenses—						
Distributors	0	18	10			
Secretary (part of)	0	12	8			
Treasurer	0	7	6			
				1	19	0
Balance				4	12	2
				£15	12	2

J. T. POWELL,
Hon. Treasurer.

17 MAY 1902

THE
EIGHTEENTH ANNUAL REPORT
OF THE
WATSON
Botanical Exchange Club,

1901-1902.

REFEREES:

J. G. BAKER, F.R.S., F.L.S., 3, Cumberland Road, Kew Gardens, Surrey.

ARTHUR BENNETT, F.L.S., 143, High Street, Croydon.

REV. W. MOYLE ROGERS, F.L.S., Chetnole, Grosvenor Road, Bournemouth West.

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HON. SECRETARY:

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THE WATSON

BOTANICAL EXCHANGE CLUB.

REPORT FOR 1901-1902.

The number of plants contributed was 1,806, which, though less than last year, is greater than in any since 1893-4. They were sent in by twenty-four members, and in addition, the Club is indebted to Mr. J. E. Bagnall, A.L.S., for kindly presenting a parcel of sixty-seven *Rubi*.

Plants of special interest are *Statice Limonium* × *rariflora*, *Rhinanthus stenophyllus*, a new British species, *Lastrœa uliginosa*, Newm., and *Chara baltica*, Bruz.

Were it not for Mr. Bagnall's kind contribution, *Rubi* would have been but poorly represented, while Batrachian *Ranunculi*, *Rosæ* and *Hieracia* have been almost entirely neglected.

It would enable the Distributor to make a much more satisfactory allotment of the plants sent in, were each

17 MAY 1902

represented by a larger number of sheets. Only one-sixth of the plants contributed were in numbers of over ten, the whole average was less than seven, while no less than fifty-four were single or two specimens. The latter are quite useless except for naming, or for placing some species on record, and if so sent the reason should be stated.

The plants sent in were, as a rule, well dried and well selected, those of a few members being especially so ; but three or four have sent in either carelessly gathered, badly dried or scrappy specimens. It is to be hoped that those whom the cap fits will wear it, and endeavour to improve the quality of their contributions.

I have endeavoured to give, in every instance, the vice-comital number. These are rarely stated on the labels, but the omission would be immaterial if members would give the correct name of the vice-county, even the county being sometimes wholly omitted.

A new Desiderata List has been prepared, which it is hoped will better represent the wishes of members, but as only eighteen marked catalogues were received, it has been impossible to gauge the requirements of the whole of the members.

The thanks of the Club are due to the following gentlemen for notes on the critical species:—Mr. A. Bennett, Mr. S. T. Dunn, Messrs. H. & J. Groves, Rev. A. Ley, Rev. E. F. Linton, Rev. W. R. Linton, Rev. E. S. Marshall, Rev. W. Moyle Rogers, Messrs. E. S. & C. E. Salmon, and Mr. F. Townsend. It is owing to the very prompt return of their criticisms that an early publication of this Report has been made possible. Where no critical opinion is quoted members may assume that the plant in question was correctly named by the sender.

The following is the list of the contributing members:—

Mr. W. Bell	45
Mr. A. Bennett	61
Mr. S. H. Bickham	103
Mr. E. Cleminshaw	88
Mrs. Cotton	62
Mr. F. C. Crawford	30
Mr. J. B. Duncan	50
Mr. H. D. Geldart	51
Mr. J. E. Griffith	21
Miss D. M. Higgins	34
Mr. T. Hilton	55
Mr. A. Hosking	59
Mr. A. B. Jackson	41
Rev. Canon Lett	48
Rev. E. S. Marshall	152
Dr. H. F. Parsons	30
Rev. H. P. Reader	78
Mr. C. E. Salmon	43
Mr. A. Smith	33
Mr. R. S. Standen	33
Mr. H. S. Thompson	196
Rev. C. H. Waddell	85
Mr. C. Waterfall	342
Major A. H. Wolley-Dod	66
	1,806

A. H. WOLLEY-DOD,

Distributor for the year 1901-1902.

Ranunculus ———. Clanrye River, near Sheepbridge, Co. Down, June 6, 1901.—H. W. Lett. This is what we take to be the real *R. pseudo-fluitans*, apparently first described as a species by Baker and Foggitt in a Report of the Thirsk Botanical Exchange Club about 1865. It is widely distributed in Ireland.—H. & J. Groves.

Caltha palustris, L. var. *Guevangerii* (Boreau). (1) Pills Wood, near Harborne, v.c. 37, Worcestershire, May 19, 1901. Sepals somewhat pointed and curled, and not contiguous. (2) Wyre Forest, v.c. 37, Worcestershire, June 2, 1901. Leaves very large, serrate-crenate.—H. S. Thompson. Probably both *Guevangerii*, but one really wants the ripe fruit.—A. Bennett.

Glaucium corniculatum, Curt. Grimsby, v.c. 54, N. Lincoln, Aug., 1901.—A. Smith. Correct. This is a common cornfield weed of S. & E. Europe, and is frequently introduced there with corn. Garden culture is, however, responsible for a few of its records as a casual in Britain.—S. T. Dunn.

Fumaria Vaillantii, Loisel. Ashburnham Road, Luton, v.c. 30, Bedford, Aug. 11, 1901.—D. M. Higgins. Apparently *F. officinalis*, but the specimen is very poor. Fumitories should be dried between thin paper.—H. & J. Groves.

Erophila stenocarpa, Jord. Sandy field, near Lavington, v.c. 13, W. Sussex, May 6, 1901.—E. S. Marshall.

E. præcox, D.C. Aldrington Beach, v.c. 14, E. Sussex, April, 1901.—T. Hilton. So I should name it (= *E. brachycarpa*, Jord.).—E.S.M.

Cochlearia alpina, H. C. Wats. ? Roadside above Pateley Bridge, v.c. 64, Mid. W. Yorks., May 28, 1901.—H. S. Thompson. On Millstone Grit at about 1,000 ft.—H.S.T. Correct.—E. S. Marshall. A single specimen, sent for naming only.

Bunias orientalis, Linn. Wheathampstead, v.c. 20, Herts., June 15, 1901.—D. M. Higgins.

Sisymbrium Columnæ, Jacq. Waste ground, West Dock Reservation, Hull, v.c. 61, E. Yorks., May, 1901.—C. Waterfall. No, this is *S. pannonicum*, which can be distinguished from *Columnæ* by its upper leaves being pinnatifid with linear segments instead of narrowly hastate or runcinate segments.—S. T. Dunn.

Brassica Rapa, L. var. *sylvestris*, H. C. Wats. Cornfields, Armitage, v.c. 39, Staffs., June, 1901. The root leaves of this *Brassica* are green and hispid, but rarely to be found at the flowering season. The plant is as common in this neighbourhood as "Charlock."—H. P. Reader. Surely, being annual, this plant should be called *Briggsii* ?—A.H.W.-D. I agree with you in calling it *Briggsii*.—E. S. Marshall. I would rather name it *Briggsii*.—A. Bennett.

B. adpressa, Boiss. Brandon, v.c. 53, S. Lincoln, Aug., 1901. Coll. Miss Stow.—A. Smith. This is *B. Sinapioides*, Roth. almost certainly. Mr. A. Bennett agrees with me, but remarks that the specimen is too small to name. Only a single scrap sent.—A.H.W.-D.

Capsella ——— approaching *rubella*. Hawkesyard, v.c. 39, Staffs., July, 1901.—H. P. Reader. Does not correspond with my French specimens of *rubella*.—A. Bennett. Var. *rubella* has the backs of the silicles much more concave. These specimens look nearer var. *macrocarpa*, Haussnk.—A.H.W.-D.

Lepidium Draba, Linn. South Knighton, v.c. 55, Leicester, June 12, 1901. Until 1897 this plant does not appear to have been noticed as a wildling in Leicestershire; now we have three localities.—W. Bell.

Thlaspi alpestre, Linn. var. *occitanum*, Jord. Rough pasture among old lead mines above Pateley Bridge, altitude nearly 1,000 ft., v.c. 64, Mid. W. Yorks., May 28, 1901.—H. S. Thompson. Yes.—A. Bennett. A single specimen sent for verification of name.

Iberis amara, Linn. Railway below Doublebois Station, v.c. 2, E. Cornwall, Sept. 7, 1901. Escape, but well established. New to Cornwall.—H. S. Thompson. I do not think an admitted "escape" should reckon as a county record.—A.H.W.-D.

Isatis tinctoria, Linn. The Mythe, Tewkesbury, v.c. 37, E. Gloucester, May, 1901.—J. B. Duncan. Also sent from the same station by E. Cleminshaw, with fruit, June 22, 1901.

Rapistrum orientale, D.C. Banks facing the sea, well established, Aldrington, v.c. 14, E. Sussex, June, 1900.—T. Hilton. This is *R. rugosum*, D.C., which is distinguished from *R. orientale* by the top of the silicle being less abruptly contracted into the style, and by the smaller and shorter lower segment. The hairiness does not seem a reliable character. Only a single specimen was sent.—A.H.W.-D.

Helianthemum guttatum, Mill. St. Brelade's Bay, Jersey, June 25, 1883.—H. F. Parsons.

Viola sylvestris, Reich. f. *leucantha*, G. Beck. Newtimber, v.c. 14, E. Sussex, April, 1901.—T. Hilton.

V. Riviniana × sylvestris. Graffham, v.c. 13, W. Sussex, May 6, 1901.—E. S. Marshall.

V. carpatica, Borbas. Sides of railway, Cockerham Moss, v.c. 60, W. Lancs., Aug. 18, 1901.—C. E. Salmon and H. S. Thompson. Named by Mr. E. G. Baker and confirmed by Prof. Borbas.—H.S.T.

V. ——— near *Pesneaui*, Lloyd. Sandhills, Lytham, v.c. 60, W. Lancs., Aug. 19, 1901.—C. E. Salmon and H. S. Thompson. Named by Mr. E. G. Baker.

Dianthus plumarius, Linn. Conway town walls, v.c. 49, Carnarvon, July, 1891.—S. H. Bickham.

D. prolifer, Linn. Pagham, v.c. 13, W. Sussex, June 25, 1901.—E. S. Marshall.

Silene quinquevulnera, Linn. Brandon, v.c. 53, S. Lincoln. Coll. Miss Stow.—A. Smith. Mr. A. Bennett tells me this has not previously been recorded for South Lincoln, but is this a satisfactory record? A single specimen was sent, with no date of gathering on the label, and no indication of the nature of the ground it was found in. Probably it is a mere casual.—A.H.W.-D.

S. dichotoma, Ehrh. Waste ground, West Dock Reservation, Hull, v.c. 61, E. Yorks., June, 1901.—C. Waterfall.

Lychnis Viscaria, Linn. Blackford Hill, v.c. 83, Edinburgh, May 28, 1900.—F. C. Crawford.

Cerastium pumilum, Curt. (Ref. No. 2557). Oxen Down, between East Dean and Upwaltham, v.c. 13, W. Sussex, May 8, 1901.—E. S. Marshall. I think correct, but it is not developed enough to be absolutely certain. New County record?—A. Bennett.

Stellaria media, Cyr. var. *Boræana* (Jord.). (1) Shoeburyness, v.c. 18, S. Essex, May 13, 1901.—A. H. Wolley-Dod. (2) Coast, Portslade, v.c. 13, W. Sussex, April and May, 1901.—T. Hilton. This does not appear to be, as I formerly supposed, a variety of dry exposed places, as I found it growing luxuriantly in the most shady places, and under bushes. It is peculiar in its pale colour, great brittleness and elongated habit, the latter character being maintained even in the most exposed spots. It appears to be a good species. Mr. Hilton sends two forms (on three out of four sheets supplied) one with the elongated habit of my Shoeburyness plant, but more glabrous, the other with the tufted habit of type *media*, but peculiar in its very long petioles, even those of the upper leaves being sometimes twice as long as their laminæ. Mr. A. Bennett has some doubt as to the propriety of including this form under the name *Boræana*.—A.H.W.-D.

S. umbrosa, Opiz. Hedgebank near Burstwick, v.c. 61, E. Yorks., May, 1901.—C. Waterfall. Correct. Mr. Bennett writes in reply to a question, "Dr. Ascherson says that *S. umbrosa*, Opiz=*S. neglecta*, Weihe.=*S. media*, var. *major*, Koch., and although Syme seemed to see a distinction, still I think they are only forms of each other." I certainly think Mr. Waterfall's plant, with acutely tuberculate seeds is different from the large form of *media* with bluntly rugose seeds, though what names they should respectively bear I cannot say.—A.H.W.-D.

S. umbrosa, Opiz. Hawkesyard, v.c. 39, Staffs., July, 1901.—H. P. Reader. No. *S. media* I believe, with more acute, longer stalked leaves than usual.—A.H.W.-D. *S. media* only, I consider.—A. Bennett.

Buda marina, Dum. a. *genuina*, auct. Lancing v.c. 13, W. Sussex, June, 1900.—T. Hilton. Gathered too early. Neither the ripe seed nor the condition of the upper pedicels can be definitely ascertained from the specimen.—A. Bennett. Only a single specimen sent.

B. marina, Dum. c. *neglecta*, (Kindeb.). Hayling Island, v.c. 11, S. Hants, Sep., 1901.—T. Hilton. Answers in the bracts' capsules and pedicels, but the seeds want the prominent papillæ, and more of them are winged than is usual, but of course there is nothing much in this.—A. Bennett. Only a single specimen sent.

B. rupestris. Exposed rocks, Ormes Head, v.c. 49, Carnarvon, July, 1891.—S. H. Bickham.

Montia fontana, Linn. Dry pasture land, Hall Ings, near Cottingham, v.c. 61, E. Yorks, May, 1901.—C. Waterfall. var. *repens*, Pers.—E. S. & C. E. Salmon.

M. fontana, var. *erecta*, Pers. Mountain springs at 1,750 ft. Schiehallion, v.c. 88, Mid. Perth, Aug., 1901.—E. Cleminshaw. Yes, var. *erecta*.—E. S. & C. E. Salmon.

Malva pusilla, Sm. Garden weed at Underdown, Ledbury, v.c. 36, Hereford, Sep. 14, 1901.—S. H. Bickham.

M. borealis, Wallm. Between the rails, West Dock Reservation, Hull, v.c. 61, E. Yorks. Confirmed by Rev. W. R. Linton, Sep., 1901.—C. Waterfall. This is synonymous with *M. pusilla*, Sm.—A.H.W.-D.

Geranium sanguineum var. *lancastriense* (With.) Hort. Thurcaston, Leicester, July 31, 1901.—T. A. Preston and W. Bell. I believe correct.—A. Bennett. The origin is not stated. It is a mistake to send plants of purely garden origin to the club, *i.e.* other than those cultivated from roots or seeds from a native habitat, in which case the origin should always be stated.—A.H.W.-D.

G. Robertianum, Linn. var. *modestum* (Jord.). Rock Walk, Torquay, v.c. 3, S. Devon, June, 1898.—S. H. Bickham. Carpels distinctly hairy. The plant is certainly less hairy than the type, but the fruit in *modestum* is glabrous.—A. Bennett. The fruit in my specimen is perfectly glabrous. I regret I did not examine other specimens before distribution; possibly there is a mixture. Members can perhaps decide for themselves whether their specimens are the variety or not.—A.H.W.-D.

Impatiens. Marrington Dingle, v.c. 40, Salop, Aug. 27, 1889.—H. F. Parsons. *I. Noli-me-tangere*, Linn.—A.H.W.-D.

I. Roylei. Below Moorswater, v.c. 2, E. Cornwall, Sept. 6, 1901.—See note by A. O. Hume, C.B. in Journ. Bot., May, 1901. Thoroughly naturalized.—H. S. Thompson.

Trifolium hybridum, Linn. Coldharbour, v.c. 20, Herts. Coll. D. M. Higgins. August, 1899.—A. Smith. This material is insufficient to name.—A. Bennett. Only two very small specimens supplied.—A.H.W.-D.

T. hybridum, b. *elegans* (Savi). Cultivated land, Ditchling, v.c. 14, E. Sussex. August, 1901.—T. Hilton. I think correct.—A. Bennett. A single specimen.—A.H.W.-D.

Anthyllis vulneraria, Linn. b. *coccinea*, Linn. Newmarket Hill, v.c. 14, E. Sussex. May, 1901.—T. Hilton.

Lotus corniculatus, Linn. var. *crassifolius*, Pers. Walls of Scarborough Castle, v.c. 62, N.E. Yorks. August 12, 1901. —C. Waterfall. It may be so, but I doubt it. It is easy to tell when living, but difficult when dried.—A. Bennett.

Coronilla scorpioides, Koch. Waste ground by rails, West Dock Reservation, Hull, v.c. 61, E. Yorks. Coll. S. Mason. October, 1901. — C. Waterfall. Named by Rev. W. R. Linton.—C.W.

Vicia tenuifolia, Roth. In an old gravel pit, Wheathampstead, v.c. 20, Herts. June 15, 1901.—D. M. Higgins. Yes, var. *stenophylla ;* a native of woods and bushy places in S. Europe and the East, which becomes a very common weed along field borders in some parts of its range. Doubtless in this case, as at Wandsworth (the only previous record known to me), a grain introduction.—S. T. Dunn.

Lathyrus montanus, var. *tenuifolius*, Reich. fil. Wyre Forest, v.c. 37, Worcester, June, 1901.—H. S. Thompson. Also sent by E. Cleminshaw and J. B. Duncan. All correct, I think, but I have seen it in W. Kent more extreme than the extremest of these specimens.—A.H.W.-D.

L. montanus, var. *latifolius*. Wyre Forest, v.c. 37, Worcester, June 2, 1901.—H. S. Thompson. I consider this form as worthy of a name as the narrow-leaved var. *tenuifolius*, and propose var. *latifolius*.—H.S.T. That may be, but if all extremes of breadth or length of leaf, as well as of multitudes of other characters, were to receive varietal names, our catalogues would be considerably increased in length. These specimens are certainly very broad-leaved.—A.H.W.-D.

L. niger, Wimm? Edgbaston Botanical Gardens, Warwickshire, where it is called *L. niger*. Origin not known. May 15, 1901.—H. S. Thompson. Surely *L. montanus*, near var. *tenuifolius*.—A.H.W.-D. Certainly not *L. niger*. As you say, I see only *L. montanus* in it.—A. Bennett.

Rubus idæus, L. var. *obtusifolius*, Willd. Beld Craig, Moffat, v.c. 72, Dumfries, July, 1901. — J. B. Duncan. Indistinguishable, I believe, from var. *obtusifolius*, though the numerous 3-nate leaves on the panicle are quite untypical.—W. Moyle Rogers.

R. suberectus, Anders. Margin of lake, Castlewillan, Co. Down, September, 1901.—C. H. Waddell. *Fide* Dr. Focke. See appendix to Flora of N.E. Ireland, p. 161.—C.H.W. In face of the authority quoted on the labels, I did not send this to Mr. Rogers, but Mr. Marshall writes of the specimen sent to him. "This cannot be pure *suberectus*, though no doubt near it. I have never seen it with such evidently angled stems, nor with declining prickles, tending to be *hooked*."—A.H.W.-D.

R. carpinifolius, W. and N. Hinksford, v.c. 39, Staffs. August, 1898.—J. E. Bagnall. Yes.—W.M.R.

R. rhamnifolius, var. *Bakeri*, Lees. Fradley, v.c. 39, Staffs., August, 1897.—J. E. Bagnall. Yes.—W.M.R.

R. villicaulis, var. *Selmeri* (Lindeb). Near Aldridge, v.c. 39, Staffs., July 22, 1896.—J. E. Bagnall. Yes.—W.M.R.

R. thyrsoideus, Wimm. Kelsey gravel pits, near Burstwick, v.c. 61, E. Yorks, August 11, 1901.—C. Waterfall. New to Yorkshire, *teste* W. Moyle Rogers.—C.W.

R. argentatus, P. J. Muell. Meenan, Aghaderg, Co. Down, July 12, 1901.—W. M. Rogers and H. W. Lett. There can, I think, be little or no doubt that these specimens belong to *R. argentatus*, in spite of the subglabrous or glabrescent stem, and the somewhat rhamnifolian aspect.—W.M.R.

R. micans, Gren. and Godr. Near Mutton Hill, north of Bambridge, also Lisnagade, parish of Aghaderg, Co. Down, July 12 and 13, 1901.—W. M. Rogers and H. W. Lett.

R. Borreri. Bell Salt. Parish of Anaclone, Co. Down, also Dublin Road, near Newry, Co. Armagh, July, 1901.—W. M. Rogers and H. W. Lett.

R. Babingtonii, Bell Salt. Drumcro, near Magheralin, Co. Down, Aug. 4th, 1898.—C. H. Waddell. *Fide*, W. Moyle Rogers in Journ. Bot., 1901, p. 134.—C.H.W.

R. Bloxamii, Lees. One mile South of Newry, Co. Armagh, July 15, 1901.—W. M. Rogers and H. W. Lett.

R. fuscus, W. & W. Streetley, near Aldridge, v.c. 39, Staffs., Aug., 1898.—J. E. Bagnall. Just the plant described on p. 76 of my Handbook of British Rubi as *R. pallidus*, W. & W. var. nov. *leptopetalus*. When first found in Britain it was named by Dr. Focke *R. Loehri*, Wirtg., and then "a weak form of *R. fuscus*;" but when he saw the living bushes in Herefordshire in 1894, he withdrew the name, and did not then see his way to suggesting another. Meanwhile it has been issued in the British Rubi set (No. 18 in part) as *R. fuscus* on his authority. I think undoubtedly intermediate between *R. fuscus* and *R. pallidus*, though on the whole nearer the latter. —W.M.R.

R. fuscus var. *nutans*, Rogers. Drayton Bassett, v.c. 39, Staffs., July 15, 1897.—J. E. Bagnall. Yes.—W.M.R.

R. rosaceus, W. & N. Meriden, also Combe Abbey Woods, v.c. 38, Warwickshire, Aug., 1895 and Sep., 1896.—J. E. Bagnall. Yes, the type as found with us.—W.M.R.

R. rosaceus (sp. coll.). Railway bank, Lindfield, v.c. 14, E. Sussex, July 7, 1901.—R. S. Standen. I think that this may belong to a form of *R. rosaceus* which is frequent in part of Surrey and E. Sussex, and may be indistinguishable from *R. bercheriensis*, Druce (see Handbook. Brit. Rubi, p. 79). If so, it is one of the rosacean forms which strongly recall *R. Kaltenbachii*, Metsch, but unfortunately the stem piece sent is so immature that a definite determination is hardly possible. From typical *R. rosaceus*, W. & N., it is of course considerably different.—W.M.R. There was a mixture on these sheets, four panicles being clearly corylifolian. I believe the sheets distributed are correct.—A.H.W.-D.

R. adornatus, P. J. Muell. Shelley, near Solihull, v.c. 38, Warwick, Aug., 1880.—J. E. Bagnall. Yes.—W.M.R.

R. corylifolius, Sm. (forma). Mile Hill Lane, Aghaderg, Co. Down, July 16, 1901.—W. M. Rogers and H. W. Lett.

R. corylifolius, Sm. var. *cyclophyllus*, Lindeb. Kelsey gravel pits, near Burstwick, v.c. 61, E. Yorks., Aug. 1, 1901.—C. Waterfall. New to E. Yorks., *teste* W. Moyle Rogers.—C.W.

R. ——— (Suberecti group). Lindfield, v.c. 16, E. Sussex, July 13, 1901.—R. S. Standen. Surely *R. cæsius*.—W.M.R.

R. ———. Lindfield, v.c. 16, E. Sussex, July 13, 1901. —R. S. Standen. Looks like *R. cæsius* × *rusticanus*.—W.M.R.

Alchemilla vulgaris var. *filicaulis* (Bus.). (1) Pasture land, near Cottingham, v.c. 61, E. Yorks., May, 1901.—C. Waterfall. (2) Bardon, v.c. 55, Leicester, Sept. 8, 1901.—W. Bell. (1) Yes, typical *filicaulis*.—E. F. Linton. (2) Yes, about as hirsute an example as I have seen. This is probably our commonest sub-species.—E.F.L.

Alchemilla ———. Site of old garden, Birstall, v.c. 55, Leicester, July, 1901.—W. Bell. This does not correspond exactly with any of our three British sub-species. If it were found wild I should like to ask M. Buser's opinion on it.—E.F.L. A single specimen sent for naming.—A.H.W.-D.

Rosa dumetorum, Thuill.? Burwardsley, v.c. 58, Cheshire, July 15, 1900.—A. H. Wolley-Dod. So named by M. Crépin with some doubt, after having first suggested it to be a variety connecting *R. tomentella* with *R. canina*. The strong tendency of the sepals to ascend after the fall of the petals, would, I think, lead one to suppose that it should come under *R. glauca*, but Crépin dismisses this character (as he has done in several other roses I have sent him from time to time), with the remark, "sepales redressées accidentellement."—A.H.W.-D.

R. arvensis, Huds. form or var? Open place in wood, Sprotboro, v.c. [63?], Yorks, July 15 and 20, 1901.—C. H. Waddell. Petals pure white, leaflets different from *arvensis*. —C.H.W. I should say quite a frequent woodland form of *R. arvensis*. Apparently not var. *bibracteata*, of which Crépin says, "On a distingué, sous le nom de *R. bibracteata*, Bart. une varieté à tiges plus robustes qu' à l'ordinaire, et à inflorescence plus ou moins multiflore."—W.M.R.

Sedum dasyphyllum, Linn. On walls and sandstone rocks, Wribbenhall, near Kidderminster, v.c. 37, Worcester, June 27, 1901.—E. Cleminshaw.

S. rupestre, Linn, a *majus*, Syme. Southrepps, v.c. 27, E. Norfolk, June 29, 1901.—H. D. Geldart. This has taken possession of a tract of land some miles square in North-East Norfolk, but it very rarely flowers, and when it does so, is much injured by insects, which bite through the flower stem just before the flowers expand. It is not of recent introduction, for I have a specimen dated 1838.—H.D.G. I think this is correct. These plants want to be seen alive to study them.—A. Bennett.

Myriophyllum verticillatum, Linn. var. *pectinatum* (D.C.). Hickling Broad, v.c. 27, E. Norfolk, September, 1901.—C. Cotton. Apparently correct.—A. Bennett.

Callitriche ———. Clanrye River, near Sheepbridge, Co. Down, June 6, 1901.—H. W. Lett. A river form which we have seen from many localities, and which is probably best placed under *C. vernalis*, Koch, although the styles are deflexed in fruit.—H. and J. Groves.

C. ———. Floating in masses in shallow, muddy pond, Castlewillan Park, Co. Down, June 7, 1901.—S. A. Stewart and C. H. Waddell. *C. hamulata.*—H. and J. Groves.

Epilobium hirsutum × *montanum?* Pond near Malvern, v.c. 37, Worcester, June 30, 1901.—H. S. Thompson. Only about one foot high; flowers small, salmon-coloured.—H.S.T. Why not *roseum?*—A.H.W.-D. Nothing to do with either; it is *E. roseum*, Schreb.—E. S. Marshall.

E. montanum × *roseum*. Garden weed at Edgbaston, a finer growth than last year's, June 29, 1901.—H. S. Thompson.

E. lanceolatum × *parviflorum*. Under granite wall, Liskeard, v.c. 2, E. Cornwall, Sept. 4, 1901.—H. S. Thompson. Looks to me like pure *obscurum*, Schreb.—A.H.W.-D. No trace of either. The specimen sent to me is far advanced, but I can see nothing in it but an exposed state (rock-grown?) of *E. obscurum*, Schreb.—E.S.M.

Seseli Libanotis, Koch. (1) Chalk pit, Cherry Hinton, v.c. 29, Cambs., Sept., 1901.—S. H. Bickham; also sent by A. Hosking. (2) Down near Cockmere Haven, v.c. 14, E. Sussex, Aug., 1901.—T. Hilton.

Œnanthe silaifolia, Bieb. Amberley, v.c. 13, W. Sussex, June, 1901.—T. Hilton. I believe correct.—A. Bennett. Only two specimens sent.—A.H.W.-D.

Selinum carvifolia, Linn. Chippenham Fen, v.c. 29, Cambs., Sept. 7, 1901.—S. H. Bickham.

Coriandrum sativum, Linn. Waste ground, West Dock Reservation, Hull, v.c. 61, E. Yorks., July, 1901.—C. Waterfall.

Caucalis latifolia, Linn. Grimsby, v.c. 54, N. Lincoln, Aug., 1900.—A. Smith. Not previously recorded for the vice-county, but the merest scrap was sent. Is it not only a casual?—A.H.W.-D.

C. daucoides, Linn. (1) Waste ground, West Dock Reservation, Hull, v.c. 61, E. Yorks., June, 1901.—C. Waterfall. (2) By the Custom House, Kingston, v.c. 13, W. Sussex, June, 1901.—T. Hilton. Mr. A. Bennett says of a specimen of Mr. Waterfall's distributed to him (not specially selected for criticism), "Is this correct? It is impossible to be sure with this specimen. If so, the fruits are either abortive or monstrous."—A.H.W.-D.

Galium Vaillantii, D.C. Potato patch, Seamer Station, near Scarborough, v.c. 62, N.E. Yorks. Coll. W. Foggitt. Aug. 15, 1901.—C. Waterfall.

Valeriana Mikanii, Syme. Tugby Wood, v.c. 55, Leicester, Aug. 8, 1901.—W. Bell. I agree with you, *sambucifolia.*—A. Bennett. Certainly not; characteristic *sambucifolia.*—E. S. Marshall.

V. pyrenaica, Linn. Ambleside, v.c. 69, Westmoreland. Coll. Miss Hodgson. July, 1901.—H. D. Geldart.

Achillea tanacetifolia, All. Waste ground, West Dock Reservation, Hull, v.c. 61, E. Yorks., July, 1900.—C. Waterfall.

Matricaria discoidea, Linn. Casual, grassy roadsides, near Winshill, Burton-on-Trent, v.c. 39, Staffs., Nov. 3, 1901.—A. B. Jackson. This is just the situation in which this species appears to flourish best. Originally from N. America, it is now rather widely scattered in England and on the continent of Europe, but is doubtless often passed over as *Matricaria inodora*. It is a stiffer and more bushy plant than the latter, and has, moreover, 4 not 5-toothed disc florets.—S. T. Dunn.

Santolina Chamæcyparissias, Linn. Waste ground, West Dock Reservation, Hull, v.c. 61, E. Yorks., June, 1901.—C. Waterfall. This is *Anthemis altissima*, a cornfield weed of S. Europe and the East, which has been observed in many localities in Britain associated with other grain introductions.—S. T. Dunn.

Senecio squalidus, Linn. Walls of Yarmouth Churchyard, Sept. 2, 1901.—S. H. Bickham.

S. squalidus × vulgaris. Hort. Bot. Gardens, Cambridge, July, 1901; root sent from Cork in 1897. See "Irish Naturalist," Dec., 1897, and Jan., 1898.—A. B. Jackson.

S. spathulæfolius, D.C. Cliffs near Holyhead, v.c. 52, Anglesea, June 20, 1901.—J. E. Griffith.

Carduus pratensis, Willd. var. or form. Boggy field, Nether Walstead, Lindfield, v.c. 14, E. Sussex, July 7, 1901.—R. S. Standen and C. E. Salmon. I thought at first that this would be the sub-var. *polycephalus* mentioned (under *Cnicus pratensis*) in Druce's Fl. Berks. On reference to the original description in Cosson & Germain's Flore de Paris (1845) one finds the plant called sub-var. *polycephalum* under *Cirsium anglicum*, Lam., with the description—"Tige moins élevée, 2-3 céphale." The form I am sending is remarkable for its cut leaves, tall stem, non-solitary heads, and numerous stem-leaves; it will not do, I think, for Cosson and Germain's plant. It is not a hybrid, I believe; at any rate not with *palustris* (*Forsteri*) as I have seen it in Sussex.—C.E.S. Is not this the var. *pseudo-Forsteri*, Hook? I have seen just similar plants growing in rank vegetation on the sides of watery ditches. Such drawn up examples seem to be usually associated with more polycephalous stems, and more cut leaves.—A.H.W.-D. It is a curious fact that the majority of continental Floras call the leaves of *C. pratensis* "entire," so it has become usual to so look on them. This a luxuriant *pratensis* form, near Watson's *pseudo-Forsteri*.—A. Bennett. Maybe *pseudo-Forsteri* but surely not deserving of a varietal name, merely rather luxuriant.—E. S. Marshall.

Centaurea nigra L. var. *decipiens*, Thuill. (1) Sea cliffs, near Hunmanby, v.c. 61, E. Yorks. (2) Old quarries, Cloughton; and (3) Dry hilly field, near Seamer, Scarborough, v.c. 62, N.E. Yorks., Aug., 1901.—C. Waterfall. The smaller specimens on the sheets from Seamer have paler pectinæ than usual, otherwise I see nothing but starved *nigra* in any of the specimens.—A.H.W.-D. As you say, only starved *nigra*.—A. Bennett.

Crepis fœtida, Linn. Field by the Ditchling Road, Brighton, v.c. 14, E. Sussex, June, 1901. –T. Hilton.

C. setosa, Hall, fil. Field of saintfoin, Newmarket Hill, near Brighton, v.c. 14, E. Sussex, June, 1901.—T. Hilton. A single specimen only.—A.H.W.-D.

Hieracium pratense, Tausch. Cult. Orig. old quarry spoil bank, Cave Hill, Belfast, Co. Antrim, June, 1901.—C. H. Waddell.

H. caledonicum, F. J. Hanb.? Railway embankment near Rubery, v.c. 37, Worcester, June 16, 1901.—H. S. Thompson. *H. vulgatum* Fr. near var. *dædalolepium*, Dahlst. That var. should have a larger, more branched sub-umbellate panicle, but states similar to the present plant are common.—A. Ley.

H. flocculosum, Backh. (*fide* Hanbury) styles yellow. On Ordovician rocks by the river, Tolleymore Park, Co. Down, June 18, 1901.—C. H. Waddell.

H. vulgatum Fr. Wall on Lurgan Road, Warringstown, Co. Down, June 12, 1901.—H. W. Lett. *H. vulgatum*, nearest the type.—A. Ley.

H. rigidum, Hartm. var. *tridentatum* Fr. Race Hill, Brighton, v.c. 14, E. Sussex, July, 1901.—T. Hilton. Yes.—A. Ley. Only one specimen sent.—A.H.W.-D.

H. ———. Sand hills, near Lytham, v.c. 60, W. Lancs., Aug 19, 1901.—C. E. Salmon and H. S. Thompson. *H. umbellatum*, Linn.—A. Ley. Var. *coronopifolium* (Bernh.).—E. S. Marshall.

Hypochœris maculata, Linn. Ormes Head, v.c. 49, Carnarvon, July, 1891.—S. H. Bickham.

Taraxacum officinale, Web. var. *erythrospermum* (Andrz). Wall top, Walton, near Hull, v.c. 61, E. Yorks., May, 1901.—C. Waterfall. Perhaps, but hardly fit for naming.—A. Bennett.

T. palustre, D.C. Hawkesyard. v.c. 39, Staffs., June, 1900.—H. P. Reader. I think rather *T. udum*, Jord.—A. Bennett.

Campanula rapunculoides, Linn. Ampthill, v.c. 30, Beds., Sep. 10, 1901.—D. M. Higgins.

Pyrola rotundifolia, Linn., var. *maritima*, Kenyon. (1) Swampy places among sand hills, Southport, v.c. 60, W. Lancs., Sept. 1886.—S. Bickham. (2) Sand hills, near Lytham, v.c. 60, West Lancs., Aug. 19, 1901.—C. E. Salmon and H. S. Thompson.

Statice Limonium × *rariflora*. Bosham, v.c. 13, W. Sussex, Aug., 1901.—E. F. Linton and E. S. Marshall.

S. rariflora, Drej. Bosham, v.c. 13, W. Sussex, Aug., 1901.—T. Hilton. Yes, well marked *rariflora*.—C. E. Salmon. A single specimen.

S. auriculæfolia, var. *occidentalis* (Lloyd), Hort. East Park, Hull. Origin, rocky coast near Wicklow, Aug., 1901.—C. Waterfall. Yes, the ordinary form of *occidentalis* which varies with very acutely or rather obtusely pointed leaves. It is safer, perhaps, to make no reference to Vahl's plant in the name of this species.—C.E.S.

S. auriculæfolia, var. *intermedia*, Syme. Knot End, v.c. 60, West Lancs., Aug. 17, 1901.—C. E. Salmon & H. S. Thompson.

Gentiana baltica, Murb. Sand hills, near Lytham, v.c. 60, W. Lancs., Aug. 19, 1901.—C. E. Salmon & H. S. Thompson. I believe correct.—A. Bennett.

Asperugo procumbens, Linn. Waste ground, West Dock Reservation, Hull, v.c. 61, E. Yorks., Aug., 1901.—C. Waterfall.

Pulmonaria officinalis, Linn. (1) Wood, near Chaddersley Corbett, v.c. 37, Worcester, May 11, 1901.—H. S. Thompson. (2) Near Hampton Loade, v.c. 40, Salop, April, 1901.—J. B. Duncan.

Cuscuta Trifolii, Bab. Parasitic on clover at (1) Madingley Chalk Pit; also (2) at Abingdon, v.c. 29, Cambs. Sep. 20, 1901.—A. Hosking. (1) I cannot make out the flower with any certainty, but its look *suggests C. Trifolii.* (2) Certainly *C. Trifolii.*—A. Bennett.

Scrophularia vernalis, Linn. Hedges at Gloddaeth, near Llandudno, v.c. 49, Carnarvon, June 1901.—S. H. Bickham.

Mimulus luteus, Linn. By the side of the Lea, v.c. 20, Herts., Coll. Miss Higgins, Sep. 1898.—A. Smith. It seems that the name this plant should bear is *M. Langsdorfii*, Doun. See a paper in Journ. Bot. 1895, pp. 4-8.—A. Bennett.

Euphrasia Kerneri, Wettst. Railway bank, near Doublebois Station, v.c. 2, E. Cornwall, Sep. 7, 1901.—H. S. Thompson. It should go to *E. borealis*, Towns. I believe.—F. Townsend.

E. ———. (1) Newton St. Faiths. (2) Stratton Strawless. (3) Felthorpe, all v.c. 27, East Norfolk, Aug. 7, 1901. (4) Yardley Chase, v.c. 32, Northants, Sep. 18, 1901. (5) between Cotton and Thornham, v.c. 25? Suffolk, Sep. 10, 1901.—H. D. Geldart. (1) *E. nemorosa*, H. Mart. (2) *E. Rostkoviana*, Hayne, (3) A form of *E. brevipila*, B. & G. (4) *E. nemorosa*, H. Mart. (5) *E. brevipila*, B. & G. var. *subeglandulosa.*—F.T.

Rhinanthus—(Ref. No. 2584). Chalk pit, above Sutton, v.c. 13, W. Sussex, Aug. 3, 1901.—E. F. Linton & E. S. Marshall. "This has been determined as *R. stenophyllus*, Schur. Herr Sterneck has confirmed it as his *Alectorolophus stenophyllus* (*R. stenophyllus*, Schur.)."—E.F.L.

Melampyrum arvense, Linn. Cornfield at Ventnor, v.c. 10, I. of Wight, Coll. Miss M. Coles, July 19, 1901.—S. H. Bickham.

Orobanche elatior. Sutton, on *Centaurea Scabiosa*, chalky bank, Sydmonton, v.c. 12, Hants., July 25, 1901.—W. Bell.

Mentha piperita, Linn., Cult. Root from side of stream, Carnmony, Co. Antrim, Aug., 1895.—C. H. Waddell. Var. *officinalis*, Hull.—A.H.W.-D.

M. arvensis, Linn., type? Cropston Reservoir, v.c. 55, Leicester, Aug., 1901.—T. A. Preston & A. B. Jackson.

M. Pulegium, Linn. Skipwith Common, Yorks., July, 1901.—W. Ingham & C. H. Waddell. Certainly not *Pulegium* but a peculiar form of *arvensis* which Mr. A. Bennett says is in too poor a condition to name. It appears starved and its flowers are undeveloped.—A.H.W.-D.

Galeopsis Ladanum, Linn. Cornfields, Fleam Dyke, near Cambridge, v.c. 29, Cambs., Sep. 3, 1901.—A. Hosking. I should say *G. canescens*, Schultz, a form of *G. angustifolia*, Ehrh. E. S. Marshall. No doubt this is the *G. ladanum* of Babington's Fl. Camb. and the sub-species *G. angustifolia* of Syme's Eng. Bot. Ed. 3. But Syme says that the *G. Ladanum* of the Linnean Herbarium is *G. intermedia*, Vill., the rare plant of Forres in Elgin.—A. Bennett.

G. dubia, Leers. Near Vodol, Bangor, v.c. 49, Carnarvon, Aug. 30, 1901.—J. E. Griffith.

Teucrium Scordium, Linn. District "6 Ely" of Babington's, Fl. Camb, Aug. 3, 1901.—J. & A. Bennett.

Plantago arenaria, Waldst. and Kit. (1) Waste Ground, West Dock Reservation, Hull, v.c. 61, E. Yorks., Sep., 1901. —C. Waterfall. (2) Grimsby, v.c. 64, Lincoln, Aug., 1901.—A. Smith.

Corrigiola littoralis, Linn. Shore of Slapton Ley, v.c. 3, S. Devon, Coll. F. H. Hanbury, Sep. 7, 1901.—H. S. Thompson.

Amaranthus retroflexus, Linn? Waste Ground, West Dock Reservation, Hull, v.c. 61, E. Yorks, Oct., 1901.—C. Waterfall. More branched and shrubby than *retroflexus*. About 2 feet high, and 4 to 5 feet in circumference, branching again and again. The main stem was quite red, and about ½ inch thick just above the ground. *A. retroflexus* grows in a more solitary manner, and is more sturdy looking than this one.—C.W. I should call it *A. retroflexus*.—A.H.W.-D. Correct.—S. T. Dunn.

Salicornia appressa, Dum. (ref. No. 2,601). Thorney, v.c. 13, W. Sussex, September 24, 1901.—E. S. Marshall.

S. lignosa, Woods (ref. No. 2,603). Bosham, v.c. 13, W. Sussex, September 16, 1901.—E. S. Marshall.

Polygonum aviculare, var. *agrestinum* (Jord.)? Roadside, Braunstone, v.c. 55, Leicester, 1901.—A. B. Jackson. This appears to agree best with var. *microspermum*.—W. R. Linton.

P. aviculare, var. ———. Roadside, Braunstone, v.c. 55, Leicester, 1901.—A. B. Jackson. *P. rurivagum*, I think.—A.H.W.-D. Yes.—W.R.L.

P. Persicaria, var. *elatum*, Grem. and Godr. Henfield, v.c. 13, W. Sussex, September, 1901.—T. Hilton. Correct. —W.R.L. Only a single specimen.—A.H.W.-D.

Euphorbia stricta, Linn. Llandogo, Wye Valley, v.c. 35, Monmouth, June 5, 1901.—E. S. Marshall.

Mercurialis annua, var. *ambigua* (Linn.). Cultivated land, Portslade, v.c. 13, W. Sussex, October, 1901.—T. Hilton. A single specimen.—A.H.W.-D.

Urtica dioica, Linn., narrow-leaved form. Edge of thicket, Hawkesyard, v.c. 39, Staffs., August, 1901.—H. P. Reader. A small form, but not falling well under var. *angustifolia*, Blytt.—A. Bennett.

U. pilulifera, Linn. Acton Green [v.c. 31, Middlesex ?]. Coll. J. E. Cooper.—A Smith. Only two specimens, in wretched condition, were contributed. The county is not stated on the labels.

Betula nana, Linn. Benin-a-Chuallaich, Rannoch, alt. 2,250 ft., v.c. 88, Mid-Perth, August, 1901.—E. Cleminshaw. Correct.—E. S. Marshall.

Salix triandra, var. *Hoffmanniana*, Sm. By the stream, Poynings, v.c. 13, W. Sussex, May, 1901.—T. Hilton. Yes.—E. F. Linton. A single specimen.—A.H.W.-D.

S. pentandra × *fragilis*. Iford, v.c. 14, E. Sussex, fl. May, lvs. June, 1901.—T. Hilton. The flowers are those of *S. viminalis*, L.; the foliage is not well selected, and may be apoblastic *S. fragilis*. Maturer leaves (July-August) should be supplied, when possible.—E.F.L. A single specimen. A.H.W.-D.

S. ———. Pills Wood, near Harborne, v.c. 37, Worcester, June 11, 1901.—H. S. Thompson. The usual form of *S. fragilis*, L. (*britannica* F. B. White), at least as far as the catkins go. The foliage suggests a strain of *S. alba* in it, but the fruit shows no sign of this.—E.F.L.

S. alba, Linn. Westham, v.c. 14, E. Sussex, June, 1901. —T. Hilton. Yes, of the common *cærulea* form.—E.F.L. A single specimen.—A.H.W.-D.

S. alba, Linn. fem. "Pollard Willows," Roadside, Keyingham Marsh, near Withernsea, v.c. 61, E. Yorks.— C. Waterfall. Too mouldy for naming, but probably typical *S. alba*, *i.e.*, not *cærulea*, Sm.—E.F.L.

S. vitellina, Linn. Hinckley, v.c. 55, Leicester, June, 1901.—H. P. Reader. When gathered the fruit of this willow was apparently in good condition for collecting, but the capsules burst in drying.—H.P.R. Hardly *S. vitellina*, but the usual British form var. *cærulea*, Sm.—E.F.L.

S. ———. Roadside, near Rubery, v.c. 37, Worcester, fl. April 27, lvs. June 16, 1901.—H. S. Thompson. *S. aurita*, L. both male and fem.; but these should not be sent without stating to which plant the foliage belongs. As a rule, foliage must accompany such specimens from the same bush, for the purpose of identification.—E.F.L.

Ceratophyllum demersum, Linn. Pool, Southcoates Lane, Hull, v.c. 61, E. Yorks, June, 1901.—C. Waterfall. Is *C. submersum*, Linn. var. It differs from *submersum* as figured by Schuman [fl. Brazil t. 125], by the surface of the fruit being smoother and by having marginal short broad-tipped spines. It is a departure in the direction of *C. cristatum*, Spruce M.S. =*C. demersum b. cristatum* K. (Schum. Fl. Brazil, III., pt. 3, p. 748, t. 125). It differs from *C. submersum* as described by Syme (Eng. Bot., 3rd Ed., vol. viii., p. 124), in that the fruit is nearly smooth on the two surfaces, and has marginal short spines with a blunt top. It may be that some of the tubercles fall off in the fruiting, but I fail to see any cicatrices remaining.—A. Bennett.

Cephalanthera ensifolia, Rich. Wyre Forest, Bewdley, v.c. 37, Worcester, May, 1901.—J. B. Duncan.

Ophrys aranifera, Huds. St. Margaret's, Abbot's Cliff, and Undercliff, near Kingsdown, v.c. 15, E. Kent, June, 1901. —J. and A. Bennett.

Ornithogalum nutans, Linn. (1). Hoarstone, near Bewdley, v.c. 37, Worcester, May, 1901.—J. B. Duncan. (2). Grown in Wild Flower Garden, East Park, Hull. Origin, v.c. 36, Hereford, August, 1901.—C. Waterfall.

Wolffia Michelii, Schleid. Ditch near North Stoke, v.c. 13, West Sussex, September 3, 1901.—C. E. Salmon. New County Record. Trimen first recorded this as a British plant from a Middlesex Station in 1866; in his Flora of Middlesex (1869) he mentioned that it had also been seen in E. Kent, Surrey, and S. Essex. Since that date it has not, it appears, been put on record for any other county, no doubt being overlooked.—C.E.S.

Potamogeton ———. Clanrye River, near Sheepbridge, Co. Down, June 6, 1901.—H. W. Lett. *P. natans* in a form between the type of Linnæus and var. *lanceolatus*, Fisher.—A. Bennett.

P. plantagineus, Du Croz. Hickling Broad, v.c. 27, E. Norfolk, September, 1901.—T. A. and C. Cotton. Yes, equals *P. coloratus*, Hornem., a rare species in E. Norfolk, though so abundant in Cambridgeshire. This is a new locality for the county.—A. Bennett.

P. lucens, var. *acuminatus*, Fr. Hickling Broad, v.c. 27, E. Norfolk, September, 1901.—T. A. and C. Cotton. Not *acuminatus*, but very interesting. It almost appears as though the stem has been suppressed at each node, and become a phyllode: but fresh microscopic sections would have to be taken of it and it would have to be studied *in situ.*—A. Bennett.

P. trichoides, var. *Trimmeri*, Casp. Ditch, Iford, v.c. 14, E. Sussex, July, 1899.—T. Hilton. Named by Mr. A. Bennett. Only two specimens sent.—A.H.W.-D.

Zannichellia pedunculata, Reichb. Pirton, near Croome, v.c. 37, Worcester, May 27, 1901.—E. Cleminshaw. No, this is only ordinary *palustris.* True *pedunculata* has not only each fruit with a pedicel, but the whole group of fruits has a peduncle.—A. Bennett.

Scirpus carinatus, Sm. Banks of Arun, near Amberley, v.c. 13, W. Sussex, September 3, 1901.—E. S. Marshall and C. E. Salmon. Very variable in length of spikelet and degree to which the upper portion of the stem is three-angled. This, I think, supports the suggested hybrid origin *(lacustris* × *triqueter).* Some of the specimens are evidently very near the former, but the stigmas are always two.—C.E.S.

Cladium jamaicense, Crantz. Chippenham Fen, v.c. 29, Cambs., July 17, 1901.—A. B. Jackson.

Carex teretiuscula, var. *Ehrhartiana* (Hoppe). (1). Seaman's Moss Pits, near Altringham, v.c. 58, Cheshire, April 5, 1868. —S. H. Bickham. (2). Stanklin Pool, near Kidderminster, v.c. 37, Worcester, June 6, 1901; and (3) Bog at Bracebridge Pool, Sutton Park, v.c. 38, Warwick, June 7, 1901.—H. S. Thompson. (1). Yes, this is the plant which S. Gibson named *C. pseudo-paradoxa* in the Phytologist, Old Series, vol. i., p. 778.—A. Bennett. One of the original stations.—A.H.W.-D. (2). New to Worcestershire.—H.S.T. (3). Mr. Bagnall considers this is a state induced by the amount of water present. When the water retires, and the surface becomes partly dry, it becomes the type. See last year's report, pp. 30-32.—A. Bennett. Mr. Marshall writes of all these gatherings : "I must own that I can see nothing really distinguishing this variety from the type," and Mr. Bennett concurs with my suggestion that it is really only a form.—A.H.W.-D.

C. paniculata, Linn. Bog in Sutton Park, v.c. 38, Warwick, June 7, 1901.—H. S. Thompson. A slender state which is not uncommon, I think it is the form *simplicior*, And.—E.S. Marshall.

C. remota × *vulpina* (*C. axillaris*, Good.). Aldwick, v.c. 13, W. Sussex, May 30, 1901.—E. S. Marshall.

C. acuta, L. var.—(1) Askham Bog, v.c. 64, Yorks. May 27, 1901.—H.S. Thompson. (2) River Blythe, v.c. 38, Warwick, July 13, 1901.—E. Cleminshaw, also sent by H. S. Thompson. (1) Too young, I cannot see anything special about it. (2) Fruit very long and pointed (beaked). It looks interesting, but I cannot say anything about it.—E.S.M.

C. Goodenowii, J. Gay. var. Old Gravel Pit, Hampton-in-Arden, v.c. 38, Warwick, July 13, 1901.—H. S. Thompson also E. Cleminshaw. Material indifferent. May be, as you suggest, *juncella*, or between that and type. One cannot give a definite name to every aberration of this most variable species. —E.S.M. Simply a short spiked form.—A. Bennett.

C. montana, Linn. (1) Wyre Forest, Bewdley, v.c. 37, Worcester, May, 1901.—J. B. Duncan. (2) Same station, June, 1901.—E. Cleminshaw, also H. S. Thompson. (3) Chailey Common, v.c. 14 ? E. Sussex ? May, 1900.—T. Hilton.

C. sylvatica, Huds. Between Chepstow and Shirenewton, v.c. 35, Monmouth, June 6, 1901.—E. S. Marshall. Some of the members may be glad to have this common sedge in quite ripe fruit.—E.S.M.

C. lævigata, Sm. Pills Wood, near Harborne, v.c. 37, Worcester, May 19, 1901.—H. S. Thompson. *Teste* A. Bennett; new to Worcestershire.—H.S.T. A single specimen sent for record.—A.H.W.-D.

C. distans, Linn. Pagham, v.c. 13, W. Sussex, May 30, June 25, 1901.—E. S. Marshall. I send these as members may be glad of specimens gathered in two stages from the same locality.—E.S.M.

C. extensa, Good. Salt Marshes, Quoile Quay. Downpatrick, Co. Down, Oct. 2, 1894.—C. H. Waddell.

C. flava, Linn. Amberley, v.c. 13, W. Sussex, June, 1901. —T. Hilton. This is our common plant which Kükenthal calls *C. Œderi* var. *ædocarpa*, And. (it agrees well with the figure in Cyp. Scand. and Fl. Dan.)=*C. flava minor*, Towns.—E. S. Marshall.

C. flava b *elatior*, Schlech ? Kingston, by Lewes, v.c. 13, W. Sussex, June, 1901.—T. Hilton. This is *C. lepidocarpa*, Tausch. as understood by Kükenthal. Whether it is really *C. flava* var. *elatior*, Schlech., I do not know.—E.S.M.

C. flava c. *Œderi*, Retz. = *C. Œderi*, Retz. var. *œdocarpa*, Andr. = *C. flava*, var. *minor*, Towns. Chailey Common, v.c. 14? E. Sussex? July, 1900.—T. Hilton. Not type *Œderi* but, as suggested on the label, var. *œdocarpa*, Andr. = *C. flava minor*, Towns.—E.S.M. Only one sheet of each of the above three *Carices* was contributed.— A.H.W.-D.

C. rostrata, Stokes, var. *elatior*, Blytt. (1) Mullaghmore Lough, parish of Loughgilly, Co. Armagh, June 24, 1901.—H. W. Lett. (2) Bracebridge Pool, Sutton Park, growing in a foot of water, v.c. 38, Warwick, June 7, 1901.—H. S. Thompson. (1) This is I believe, var. *latifolia*, Asch. from which I cannot separate Præger's *rhynchophysa*, an extreme state of it.—E.S.M. (2) I do not know *elatior*, but this specimen appears to be merely a tall and slender state, as would be the natural result of growing in a foot of water.—E.S.M. Not the variety which is 3 times as large with 3—5 female spikes.—A. Bennett.

Spartina alterniflora, Loisel. Mouth of the Itchen, v.c. 11, Hants., Sep. 15, 1900.—S. H. Bickham.

S. Townsendi, H. and J. Groves. (1) Head of Bosham Creek, v.c. 13, W. Sussex, Sept. 16, 1901.—J. & A. Bennett. (2) Bosham, v.c. 13, W. Sussex, Aug. 1, 1901.—E. S. Marshall. (3) Thorney Island, v.c. 13, W. Sussex, Aug., 1901.—T. Hilton.

Homalocenchrus oryzoides, Mieg. Canal at Woking, v.c. 17, Surrey, Sept, 1901.—J. & A. Bennett. Mr. A. Bennett writes that he sends this plant on account of its exserted panicle which is seldom produced.—A.H.W.-D.

Agrostis vulgaris, var. *pumila* (Linn.) Roadside, valley of R. Tummel, v.c. 88, Mid. Perth, Aug., 1901.—E. Cleminshaw.

A. vulgaris var. *nigra* (With.) Cornfield, Cockerham Moss, v.c. 60, W. Lancs. –H. S. Thompson. Yes; a single specimen sent as a new county record.—A.H.W.-D. I believe correctly named.—A. Bennett.

Polypogon monspeliensis, Desf. Thorney, v.c. 13, W. Sussex, Sept. 14, 1901.—E. S. Marshall. New county record, *fide* A. Bennett.—A.H.W.-D.

Deschampsia cæspitosa, Beauv. Side of pond, Magheralin, Co. Down, July, 1896.—C. H. Waddell. A proliferous form, growing in the same clump with the ordinary form.—C.H.W.

Poa bulbosa, Linn. Racehill, Brighton, v.c 14, E. Sussex, June, 1901.—T. Hilton. Only a single specimen sent.

Glyceria distans, Wahl. (1) Waste ground, West Dock Reservation, Hull, v.c. 61, E. Yorks.—C. Waterfall. (2) Marshy ground, near the Harbour, Belfast, Co. Down, Aug., 1900.—C. H. Waddell. (1) Most of the specimens look peculiar in their dense contracted panicles, but this is probably only on account of their youth.—A.H.W.-D. Merely a luxuriant form, I think.—E. S. Marshall. (2) I am very doubtful as to some of the barren foliage on most of the sheets, which appears to belong to *G. maritima*.—A.H.W.-D.

Festuca ovina, var. *glauca* (Lam.) Dry pastures, Hawksyard, v.c. 39, Staffs., July, 1901.—H. P. Reader. May pass, but not so glaucous as specimens named by Hackel.—A. Bennett.

F. elatior × *Lolium perenne*. Swamp, south of "Sussex Pad," Lancing, v.c. 13, W. Sussex, June, 1901.—T. Hilton. I should have called merely a montrosity. In all the hybrids I have seen the spikelets are much longer and more regularly disposed.—A. Bennett.

Bromus erectus, Huds. ? Canal Banks, Brereton, v.c. 39, Staffs., July, 1901.—H. P. Reader. I believe correct, new county record.—A.B.

Bromus tectorum, Linn. Waste ground, West Dock Reservation, Hull, v.c. 61, E. Yorks, June, 1901.—C. Waterfall.

Lolium perenne, Linn. var. or state (Reference No. 2,542). Beech Wood, near Pitchcombe, v.c. 33, E. Glo'ster, June 14, 1901.—E. S. Marshall. Associated with *Hordeum sylvaticum*. Peculiar-looking, but the wood was dry and the soil thin (on limestone).—E.S.M. Near to var. *tenue*, I think, but perhaps only a wood form of type.—A.B.

Agropyron acutum, Roem. and Schult. Exmouth Sands, v.c. 3, Devon, September 25, 1900.—S. H. Bickham. The structure of the leaves seems to point to *acutum*, but it is a much larger plant than any I have so named by Hackel. The leaf structure certainly takes it away from *repens*.—A.B.

Lepturus filiformis, Trin. Waste ground near the harbour, Belfast, Co. Down, August, 1900. C. H. Waddell.

Athyrium molle, Roth. Raw Head, v.c. 58, Cheshire, August 15, 1901. — A. H. Wolley-Dod. Agrees with description and specimens in the Kew Herbarium, but it appears to me to be little but a form due to exposed situations, such as one may find of other species.—A.H.W.-D.

Ceterach officinarum, Willd. var. *crenatum*, Milde. Near Crossgar, Co. Down, September 5, 1900.—C. H. Waddell.

Lastræa cristata, Presl. Norfolk Broads, v.c. 27, Norfolk, September, 1901.—C. Cotton.

L. uliginosa, Newm. Norfolk Broads, v.c. 27, Norfolk, September, 1901.—C. Cotton. Of the 10 sheets sent, Mr. A. Bennett has passed three as *L. uliginosa*, and has marked the others "probably *uliginosa*." As the plants on the latter sheets look so different to the others, as might be expected in a hybrid *(cristata × spinulosa)*, I have distributed three of them to the same members as receive the true plant, hoping that Mrs. Cotton will be able to obtain a further supply of equally excellent specimens next year.—A.H.W.-D.

Lycopodium annotinum, Linn. Wood within 10 miles of York, v.c. 62. Coll., W. B. Alexander. May 27, 1901. —H. S. Thompson. Discovered, new to Yorkshire, March 12, 1890, by B. B. LeTall, M.A., of York.—H.S.T.

Pilularia globulifera, Linn. Large dried-up pool, Skipwith Common [v.c. 61 ?], Yorks, July 26, 1901.—W. Ingham and C. H. Waddell.

Chara polyacantha, Braun. Hickling Broad, v.c. 27, Norfolk, September, 1901.—C. Cotton. Yes, a small state.—H. and J. Groves.

C. baltica, Bruzel. Loch Stennis, v.c. 111, Orkney, September 2, 1901.—F. C. Crawford. Named by Messrs. H. and J. Groves.

C. papillosa, Kuetz. Somerton Broad, v.c. 27, Norfolk, September, 1901.—C. Cotton. *C. hispida*, L., with few spine-cells. September is too late to gather characteristic specimens of this species.—H. and J. Groves.

Lychnothamnus stelliger, Braun. Hickling Broad, v.c. 27, Norfolk, September, 1901.—C. Cotton. Yes.—H. and J. Groves.

Tolypella glomerata, Leonh. Muddy bottom of dyke, (under water), Dunswell Lane, near Beverley, v.c. 61, E. Yorks, May, 1901.—C. Waterfall. *T. intricata*, Leonh., H. and J. Groves.

N.B.—Members can obtain copies of most of the Back Reports from the Hon. Sec. at 6d. each.

SUPPLEMENT.

Sisymbrium ———. Waste ground, West Dock Reservation, Hull, E. Yorks., v.c. 51, Aug., 1900.—C. Waterfall. Named *S. Loeselii*, L., by Mr. J. Britten, and no doubt rightly. It has been previously found near a railway at Didcot, in Berkshire. It seems to be indigenous to the Altai region, where it is common on river banks.—S. T. Dunn.

Medicago falcata, L. (1). Upper Roedean (road-side), Sussex, July, 1900. (2). South of Lighthouse, Kingston, W. Sussex, August, 1900.—T. Hilton.—Not an infrequent weed of waste places in Britain, though apparently not recorded as a native here or elsewhere in N. Europe.—S. T. Dunn.

Lathyrus hirsutus, L. Stanmer, E. Sussex, cultivated land, 1900.—T. Hilton. This is another instance of the appearance of this species in connection with agriculture. Its natural appearance near cultivation has led to its admission as an indigenous British plant by some authors, but these cases are so few compared with those in which its origin is obviously alien, that we must be content at present, like botanists of other parts of N.W. Europe, to regard it as an introduced species. It is certainly native in bushy places in Central and E. Europe and on dunes in Tunis.—S. T. Dunn.

Cotoneaster microphylla. Hedge bank, in Pabo village, Pabo Hill, Carnarvonshire, v.c. 49, July, 1900.—C. Waterfall. *C. microphylla*, Wall. This is the species that is said to be naturalized on Brean Down in Somerset, and if it has held its own on that exposed and wind-swept promontory, it will survive as a relic of garden culture in other places. It is a native of the Himalaya region.—S. T. Dunn.

Xanthium spinosum, L. (1) Waste ground, West Dock Reservation, Hull, E. Yorks., v.c. 61, Sept., 1900.—C. Waterfall. (2) South of Lighthouse, Kingston, W. Sussex, Sept., 1900.—T. Hilton. On a specimen of Mr. Hilton's gathering Mr. S. T. Dunn remarked—" Ripe fruits are found on this plant in England only under very favourable conditions. That this is due to its late flowering is suggested by the present example which had only immature achenes when gathered in September.

SUBSCRIPTIONS, 1901.

	£	s.	d.
Bell, W.	0	5	0
Bickham, S. H.	0	5	0
Bostock, E. D.	0	5	0
Cleminshaw, E.	0	5	0
Cotton, Mrs.	0	5	0
Crawford, F. C.	0	5	0
Crosfield, A. J.	0	5	0
Davey, F. H.	0	5	0
Druce, G. C.	0	5	0
Ewing, P.	0	5	0
Geldart, H. D.	0	5	0
Goode, G.	0	5	0
Goss, H.	0	5	0
Gregory, Mrs.	0	5	0
Griffith, J. E.	0	10	0
Hayes, A.	0	5	0
Higgins, Miss D. M.	0	5	0
Hilton, T.	0	5	0
Hosking A.	0	5	0
Hume, A. O., C.B.	0	5	0
Humphreys, J.	0	5	0
Jackson, A. B.	0	5	0
Lett, Rev. Canon	0	5	0
Marshall, Rev E. S.	0	5	0
Mennell, H. T.	0	5	0
Nicolson, D.	0	5	0
Overton, Mrs.	0	5	0
Parsons, Dr. H. F.	0	5	0
Playfair, Dr. D. T.	0	5	0
Powell, J. T.	0	5	0
Praeger, R. Ll.	0	5	0
Pugsley, H. W.	0	5	0
Reader, Rev. H. P.	0	5	0
Routh, T. E.	0	5	0
Scott Elliot, Prof. G. F.	0	5	0
Somerville, A.	0	5	0
Standen, R. S.	0	5	0
Thompson, H. S.	0	5	0
Waddell, Rev. C. H.	0	5	0
Waterfall, C.	0	5	0
White, J. W.	0	5	0
Wolley-Dod, Major A. H.	0	5	0
	£10	15	0

31st December, 1901.

In addition to the above the subscriptions of five members have been received for the year 1902.

TREASURER'S BALANCE SHEET, 1901.

Receipts.

	£	s.	d.
Balance on hand from 1900	4	12	2
Subscriptions, 1901	10	15	0
Bank Interest	0	3	9
	£15	10	11

Expenditure.

	£	s.	d.	£	s.	d.
Printing—						
Morland & Henson, 17th Report	9	17	6			
,, ,, Covers and covering Desiderata List	0	15	0			
Morland & Henson, Circular	0	6	6			
				10	19	0
Working Expenses—						
Distributors	1	15	0			
Secretary, Stationery ...	0	3	4			
,, Postage of Report, Circular and Desiderata List	0	10	10			
Secretary, Postage, ordinary	0	5	0			
Treasurer	0	5	0			
				2	19	2
Balance in hand				1	12	9
				£15	10	11

31st December, 1901.

ALEX. SOMERVILLE,

Hon. Treasurer.

THE
WATSON
BOTANICAL EXCHANGE CLUB.

List of Desiderata for 1902.

Referees:

J. G. BAKER, F.R.S., F.L.S., 3, Cumberland Road,
Kew Gardens, Surrey.

ARTHUR BENNETT, F.L.S., 143, High Street, Croydon.

Rev. W. MOYLE ROGERS, F.L.S., Chetnole, Grosvenor
Road, Bournemouth West.

Distributor:

Major A. H. WOLLEY-DOD, Pyrmont, Common Road,
Walton-on-Thames.

Hon. Treasurer:

ALEXANDER SOMERVILLE, B.Sc., F.L.S., 4, Bute
Mansions, Hillhead, Glasgow.

Hon. Secretary:

H. STUART THOMPSON, F.L.S., 253, Monument Road,
Edgbaston, Birmingham.

"Labor Omnia Vincit."

BIRMINGHAM:
Morland and Henson, Printers, Edmund Street.
1902.

RULES.

1. The objects of the Watson Botanical Exchange Club are to promote more intercourse between British botanists, and to study, as much as possible, British plants belonging to the critical genera.

2. The subscription is 5s. a year, and is due on January 1st.

3. *a.* Members may send to the Distributor for the time being, before January 31st, each year, parcels of plants for distribution, and they will receive in return plants in proportion to the number and quality of those sent.

b. Each plant or sheet of plants must bear a label giving the name, place where collected, collector's name, and date. The labels should *not* be attached to the specimens nor to the sheets.

c. At least six specimens of each plant should be sent. Single specimens are for record only, not for distribution.

d. It is particularly requested that *good* specimens should be sent. *Scraps are not of the slightest use.*

e. No plants must be sent which are not included in the List of Desiderata for the current year, unless new to the County or Vice-County in which gathered.

f. Each member must let the Distributor have a London Catalogue of British Plants with a horizontal stroke (thus—) before each of his desiderata; which may be cancelled by a perpendicular stroke (thus+) when the plant is no longer wanted. These Catalogues should accompany the parcels. They will be returned in the return parcels. No MS. list should be sent.

g. The plants in the parcels should be arranged in the order in which they are printed in the 9th ed. of the London Catalogue. Specimens of the same species should be put on separate sheets in one cover, each sheet being accompanied by one label, with the name of the genus and species, and its number in the London Catalogue, written on the outside of the cover. These covers should all be of uniform size; from 10 to 12 by 16 to 18 inches is recommended. Very large sheets are more objectionable than very small ones.

h. The covers should be made up in a parcel enclosed by two stiff cardboards. Each board should bear the owner's name for use in the return parcels. Small boards are as objectionable as large sheets, because they cannot be used for return parcels.

4. Members will very much increase the scope and work of the Club if they will send for examination any Batrachian Ranunculi, Rosæ, Rubi, Callitriche, Hieracia, Menthæ, Salices, Naiadaceæ, Junci, Carices, Characeæ, &c.,—the study of critical species being one of the principal aims of the Club. One specimen of each will if possible be returned to the owner after examination.

In the case of Hieracia the colour of the styles should always be stated on the label.

The following quotation from Prof. Babington's "British Rubi" will show what a perfectly diagnosable specimen of a fruticose Rubus should consist of:—
"To judge properly of a bramble from a preserved specimen we require a piece of "the middle of the stem with more than one leaf; the base and tip of the stem are "also desirable. Likewise a piece of the old stem with the flowering shoot attached "to it; the panicle with flowers, and the fruit. We likewise want to know the "direction of the stem throughout, of the leaflets, and of the calyx; also the shape "of the petals and the colour of the styles; a note of these should be made when "the specimen is gathered."

Willows should have the flower or fruit and the foliage taken from the *same bush*; or if otherwise, the fact should be stated.

Cultivated Specimens cannot be accepted by the Club, except in the case of rare plants, where there is any danger of extermination; or in cases in which cultivation throws any additional light on the habits of the species.

Insects will not attack Herbaria where naphthaline is used.

Any species or varieties which are not included in the Ninth Edition of the London Catalogue with the exception of the following:—Sisymbrium orientale (Columnæ), Silene dichotoma, Coronilla varia, Potentilla inclinata, Inula britannica, Senecio vulgaris × squalidus, Cannabis sativa, and species not hitherto recorded for their Vice-County, may also be sent.

LIST OF DESIDERATA.

- Thalictrum dunense
  - calcareum
  - majus
  - Kochii
  - flavum, *vars.*
- Anemone ranunculoides
  - apennina
- Ranunculus aspergillifolius
  - Bachii
  - cambricus
  - heterophyllus, *and vars.*
  - peltatus, *vars.*
  - Baudotii, *vars.*
  - tripartitus, *and var.*
  - omiophyllus
  - ophioglossifolius
  - radicans
  - reptans
  - petiolaris
  - acris, *vars.*
  - parvulus
  - flabellatus, *and var.*
  - incumbens
- Caltha palustris, *vars* (except vulgaris)
  - radicans, *and var.*
- Eranthis hyemalis
- Delphinium Ajacis
- Pæonia corallina
- Epimedium alpinum
- Nymphæa intermedia
  - pumila
- Castalia minor
- Papaver glabrum
  - strigosum
- Glaucium phæniceum
- Rœmeria hybrida
- Chelidonium laciniatum
- Neckeria bulbosa
- Fumaria muralis
  - Vaillantii
  - parviflora
- Mathiola incana
- Nasturtium siifolium
  - microphyllum
  - pinnatifidum
  - variifolium
- Barbarea arcuata
  - stricta
- Arabis alpina
  - petræa, *and vars.*
  - ciliata, *and var.*
  - glabrata
  - Turrita
- Cardamine lilacina
  - pratensis, *vars.*
- Draba confusa
  - rupestris
- Erophila praecox
  - inflata
- Cochlearia micacea
  - grænlandica
  - Hortii
- Sisymbrium polyceratium
  - Irio
- Camelina fœtida
- Brassica oleracea
  - Rutabaga
  - Rapa, *and vars.*
  - Erucastrum
- Lepidium latifolium
  - sativum
  - canescens
- Thlaspi perfoliatum
  - sylvestre
- Cakile integrifolia
- Raphanus maritimus
- Reseda alba
- Helianthemum guttatum
  - Breweri
  - marifolium, *and var.*
- Viola, *hybrids*
  - lactiflora
  - rosea
  - glabrata
  - leucantha
  - villosa
  - nemorosa
  - rupestris
  - crassifolia
  - lactea
  - stagnina
- Polygala, *all except*
  - vulgaris
  - serpyllacea
  - calcarea
- Frankenia pulverulenta
- Dianthus glaucus
  - Caryophyllus
- Saponaria puberula
- Silene armeria
  - italica
- Cucubalus baccifer
- Holosteum umbellatum
- Cerastium triviale *vars.*
  - pubescens
  - arcticum, *and var.*
  - Andrewsii
  - trigynum
- Arenaria Gerardi
  - sulcata
  - uliginosa
  - tenuifolia, *and vars.*
  - Lloydii
  - ciliata
  - norvegica
  - gothica

Sagina maritima, *vars.*
spinosa
Boydii
nivalis
Buda marina
media
glabrescens
Claytonia sibirica
Elatine Hydropiper
Hypericum hircinum
angustifolium
maculatum
undulatum
decumbens
procumbens
montanum
Althæa hirsuta
Lavatera sylvestris
Malva verticillata
parviflora
Tilia platyphyllos
cordata
Linum crepitans
Geranium sanguineum, *vars.*
nodosum
Raii
Robertianum, *vars.*
Oxalis subpurpurascens
corniculata
Impatiens noli-tangere
Acer leiocarpon
Lupinus perennis
Ulex strictus
Ononis mitis
reclinata
Medicago sylvestris
denticulata, *vars.*
Trifolium pratense, *vars.*
prostratum
elegans
Townsendii
resupinatum
agrarium
Anthyllis Vulneraria, *vars.*
Lotus corniculatus, *vars.*
augustissimus, *and var.*
Oxytropis campestris
Vicia gracilis
incana
Orobus
lævigata
hybrida
bythinica, *and var.*
Lathyrus hirsutus
sphæricus
latifolius
acutifolius
niger
Prunus macrocarpa
insititia
domestica
Spiræa denudata
Rubus, *any except*
idæus
fissus
plicatus
affinis
carpinifolius
Lindleianus
erythrinus
rhamnifolius
pulcherrimus
Selmeri
rusticanus
subinermis
Sprengelii
pyramidalis
leucostachys
mucronatus
anglosaxonicus
Radula
rudis
Babingtonii
fuscus
pallidus, W. & N.
foliosus
rosaceus
adornatus
pallidus, Bab.
Marshalli
dumetorum ferox
Balfourianus
saxatilis
Chamœmorus
Dryas pilosa
Fragaria elatior
Potentilla hirta
rubens, *and var.*
procumbens, *hybrids*
reptans, *var. & hybrids*
rupestris
Alchemilla alpestris
argentea
Poterium polygamum
Rosa, *any except*
pimpinellifolia
tomentosa
subglobosa
scabriuscula
rubiginosa
obtusifolia
tomentella
lutetiana
andegavensis
sphærica
dumalis
verticillacantha
urbica
dumetorum
subcristata
systyla
arvensis.
Pyrus, *all except*
torminalis
Aria
Aucuparia
Malus, *and vars.*
germanica
Cratægus laciniata
kyrtostyla
monogyna
Cotoneaster integerrimus
Saxifraga nivalis
Geum, *and vars.*
hirsuta
serratifolia
Hirculus
rivularis
cernua
cæspitosa
Sternbergii
decipiens
grœnlandica
hirta
Ribes Uva-crispa
rubrum, *vars.*
Sedum Telephium, *and vars.*
micranthum
sexangulare
albescens
rupestre, *and vars.*
Fosterianum *and var.*
Sempervivum tectorum
Hippuris fluviatilis
Callitriche, *all except*
stagnalis
hamulata
truncata
Epilobium *hybrids* (*exc.* obscurum × parviflorum)
Lamyi
Circæa intermedia L. C.
intermedia (Ehrh.)
Astrantia major
Physospermum commutatum
Apium repens
Moorei
Ammi majus
Carum verticillatum
Falcaria vulgaris
Pimpinella Saxifraga, *vars.*
dissecta N.E.Br.
Anthriscus Cerefolium
Œnanthe silaifolia
fluviatilis
Siler trilobum
Ligusticum scoticum
Archangelica officinalis
Peucedanum officinale
Heracleum augustifolium
Tordylium maximum
Daucus gummifer
Caucalis latifolia

- Cornus suecica
- Sambucus laciniata
- Lonicera Caprifolium
  - Xylosteum
- Galium maritimum
  - insubricum
  - Bakeri
  - × verum
  - nitidulum
  - microphyllum
- Asperula taurina
  - arvensis
- Valeriana Mikanii
- Centranthus Calcitrapa
- Valerianella lasiocarpa
  - eriocarpa
  - carinata
  - rimosa
  - mixta
- Scabiosa maritima
- Filago apiculata
  - spathulata
  - gallica
- Antennaria hyperborea
- Anaphalis margaritacea
- Gnaphalium pilulare
  - luteo-album
  - norvegicum
- Inula salicina
- Pulicaria vulgaris
- Xanthium Strumarium
- Achillea alpestris
- Diotis candidissima
- Anthemis maritima
  - anglica
- Matricaria phæocephala
  - maritima
- Artemisia coarctata
  - gallica
- Doronicum plantagineum
- Senecio radiatus
  - flosculosus
  - pennatifidus
  - paludosus
  - palustris
- Arctium subtomentosum
  - nemorosum
  - intermedium *and var.*
- Carduus tenuifolius
  - crispus, *vars. and hybrid*
- Cnicus palustris × pratensis
  - tuberosus
  - oleraceus
  - heterophyllus × palustris
  - acaulis, *hybrids*
  - mitis
  - horridus
- Centaurea Jacea
  - decipiens
  - paniculata
  - aspera
- Picris arvalis
- Crepis fœtida
  - setosa
  - biennis
  - succisæfolia
- Arnoseris pusilla
- Hieracium, *all except*
  - Pilosella
  - aurantiacum
  - Schmidtii
  - murorum
  - vulgatum
  - maculatum
  - sciaphilum
  - prenanthoides
  - auratum
  - boreale
  - umbellatum
- Hypochæris Balbisii
- Leontodon pratensis
- Taraxacum udum
- Lactuca Scariola
  - Saligna
  - alpina
- Prenanthes purpurea
- Sonchus arvensis, *vars.*
- Tragopogon Symei
- Lobelia urens
- Jasione montana, *vars.*
- Phyteuma spicatum
- Campanula rotundifolia, *vars.*
  - persicifolia
  - Rapunculus
- Vaccinium Myrtillus × Vitis-Idæa
- Arbutus Unedo
- Erica ciliaris × Tetralix
  - Mackaii
  - mediterranea
- Bryanthus taxifolius
- Pyrola media
  - secunda
- Moneses grandiflora
- Statice Dodartii
- Armeria planifolia
- Primula acaulis, *var. and hybrids*
  - elatior × veris
  - scotica
- Cyclamen hederæfolium
- Lysimachia thyrsiflora
  - augustifolia
  - punctata
  - ciliata
- Centunculus minimus
- Fraxinus diversifolia
- Erythræa latifolia
  - littoralis
  - tenuiflora
  - sphærocephala
- Cicendia pusilla
- Gentiana nivalis
  - baltica
- Polemonium cæruleum
- Cynoglossum subglabrum
  - germanicum
- Anchusa officinalis
- Pulmonaria officinalis
- Myosotis strigulosa
  - umbrosa
  - Mittenii
  - Balbisiana
- Cuscuta Epilinum
- Solanum Dulcamara *vars.*
  - nigrum, *vars.*
- Verbascum, *all except*
  - Thapsus
  - nigrum
- Linaria supina
  - Pelisseriana
  - purpurea
  - latifolia
- Scrophularia aquatica, *vars.*
  - umbrosa
  - Scorodonia
- Veronica grandiflora
  - triphyllos
  - verna
  - eximia
  - alpina
  - fruticans
  - spicata
  - hirsuta
  - hirsuta, Web.
  - anagalliformis
- Euphrasia, *all except*
  - brevipila
  - nemorosa
  - curta
  - scotica
  - Kerneri
  - gracilis
- Bartsia divergens
- Rhinanthus, *all except*
  - Crista-galli
- Melampyrum
  - pratense, *vars. exc.* hians
- Orobanche arenaria
  - ramosa
  - rubra
  - caryophyllacea
  - Picridis
  - flavescens
- Utricularia *all exc.* vulgaris
- Pinguicula grandiflora
  - alpina
- Mentha, *all except*
  - rotundifolia
  - alopecuroides
  - longifolia
  - viridis
  - piperita officinalis
  - hirsuta

- sativa rivalis
- paludosa
- rubra
- Pulegium

- Origanum megastachyum
- Calamintha sylvatica
- Salvia pratensis
- Nepeta parviflora
- Melittis Melissophyllum
- Stachys germanica
  - palustris, *var.*
  - annua
- Galeopsis Ladanum
  - bifida
- Lamium intermedium
  - decipiens
- Ballota ruderalis
  - borealis
- Teucrium Chamaedrys
- Ajuga pyramidalis
- Plantago intermedia
  - Timbali
  - minor
  - pygmaea
- Herniaria, *any*
- Scleranthus perennis
- Amaranthus Blitum
- Chenopodium Vulvaria
  - hybridum
  - urbicum, *and vars.*
  - botryoides
  - glaucum
- Atriplex serrata
  - prostrata
  - virescens
  - pedunculata
- Salicornia herbacea, *vars.*
  - appressa
  - radicans
- Polygonum
  - microspermum
  - littorale
  - Raii
  - maritimum
  - mite
  - maculatum
  - alpinum
- Rumex conglomeratus, *hybrids*
  - rupestris
  - limosus
  - pulcher × rupestris
  - obtusifolius, *var. and hybrid*
  - crispus, *vars. & hybrids*
  - domesticus, *and hybrid*
  - latifolius
  - alpinus
- Asarum europaeum
- Aristolochia Clematitis
- Daphne Mezereum
- Euphorbia coralloides
  - Pseudo-cyparissias
  - retusa
  - Lathyris
- Mercurialis ambigua
- Ulmus montana, *vars.*
  - glabra
- Urtica angustifolia
  - pilulifera, *and var.*
- Parietaria fallax
- Betula pubescens, *vars.*
  - intermedia
- Quercus intermedia
- Salix, *all except*
  - triandra
  - pentandra
  - fragilis
  - alba
  - cinerea
  - aurita
  - Caprea
  - repens
  - viminalis
  - herbacea
- Populus villosa
- Ceratophyllum, *any in fruit*
- Juniperus intermedia
  - nana
- Malaxis paludosa
- Corallorhiza innata
- Spiranthes Romanzoviana
- Goodyera repens
- Epipogum aphyllum
- Cephalanthera rubra
  - ensifolia
- Epipactis media
  - violacea
  - atrorubens
- Orchis hircina
  - militaris
  - Simia
  - laxiflora
  - incarnata, *vars.*
  - latifolia × maculata
- Ophrys Trollii
  - Arachnites
- Herminium Monorchis
- Habenaria intacta
- Cypripedium Calceolus
- Iris citrina
  - Pseudacorus, *vars.*
  - tuberosa
- Crocus, *any exc.* vernus
- Sisyrinchium augustifolium
- Gladiolus illyricus
- Narcissus, *any exc.* Pseudo-narcissus
- Leucojum vernum
- Asparagus officinalis, *vars.*
- Polygonatum verticillatum
- Maianthemum Convallaria
- Simethis bicolor
- Allium, *all except*
  - Scorodoprasum
  - compactum
  - ursinum
- Ornithogalum pyrenaicum
- Lilium pyrenaicum
- Lloydia alpina
- Juncus fasciculatus
  - balticus
  - filiformis
  - Kochii
  - alpinus
  - acutiflorus, *var. and hybrid*
  - castaneus
  - biglumis
- Luzula Fosteri × vernalis
  - gracilis
  - arcuata
  - umbellata
  - sudetica
- Typha media
- Sparganium microcarpum
  - longissimum
- Arum italicum
- Alisma lanceolatum
  - repens
  - zosterifolium
- Elisma natans
- Damasonium stellatum
- Scheuchzeria palustris
- Potamogeton, *all except*
  - natans
  - lanceolatus
  - polygonifolius
  - lucens
  - prælongus
  - perfoliatus
  - crispus
  - densus
  - zosteræfolius
  - acutifolius
  - obtusifolius
  - pusillus
  - pectinatus
  - interruptus
- Ruppia spiralis
- Zannichellia brachystemon
  - polycarpa, *and vars.*
- Zostera marina, *var.*
  - nana
- Najas flexilis
- Elocharis longicaulis
  - uniglumis, *and var.*
- Scirpus nanus
  - carinatus
  - triqueter
  - pungens
  - compactus
  - dissitiflorus
  - bifolius

- Eriophorum alpinum
  - longifolium
  - alpinum, Gaud
  - gracile
- Schœnus ferrugineus
  - nanus
- Kobresia caricina
- Carex Davalliana
  - incurva
  - longibracteata
  - ligerica
  - rigida
  - vulpinoides
  - Grypus
  - Boenninghausiana
  - helvola
  - approximata
  - alpicola
  - bracteata
  - alpina
  - fusca
  - Hudsonii *and var.*
  - acuta, *vars.*
  - trinervis
  - rigida, *var.*
  - aquatilis, *and vars.*
  - Gibsoni
  - melæna
  - flacca, *vars.*
  - magellanica
  - ornithopoda
  - Leesii
  - ericetorum
  - tomentosa
  - intermedia (Miég)
  - atrofusca
  - frigida
  - ventricosa
  - gracilis
  - diluta
  - pumila
  - flava, elatior
  - cyperoides
  - × fulva
  - ebracteata
  - rostrata, *vars.*
  - rhynchophysa
  - dichroa
  - Grahami
- Panicum sanguinale
  - glabrum
- Setaria verticillata
- Phalaris paradoxa
- Hierochloe borealis
- Alopecurus pronus
  - alpinus, *and var.*
- Phleum phalaroides
- Agrostis scotica
  - palustris, *vars.*
- Polypogon littoralis
- Gastridium australe
- Apera interrupta
- Deyeuxia, *any*
- Ammophila baltica
- Deschampsia caespitosa *vars.*
  - alpina R. & S.
  - discolor
  - flexuosa, *vars.*
- Avena pratensis, *vars.*
  - fatua, *vars.*
- Phragmites communis, *vars.*
- Kœleria arenaria
- Molinia depauperata
- Dactylis congesta
- Poa supina
  - bulbosa
  - stricta
  - laxa
  - glauca
  - Balfourii
  - memoralis, *vars.*
  - compressa, *vars.*
  - Chaixii
  - strigosa
  - palustris
  - trivialis, *vars.*
- Glyceria triticea
  - pedicellata
  - depauperata
  - maritima, *vars.*
  - distans, *vars.*
- Festuca ambigua
  - intermedia
  - ovina, *vars.*
  - rubra, *vars. exc.* arenaria
  - dumetorum
  - heterophylla
  - arundinacea
- Bromus triflorus
  - ramosus, *vars.*
  - villosus
  - madritensis
  - rigidus
  - racemosus
  - commutatus, *vars.*
  - interruptus
- Brachypodium glabrescens
- Lolium perenne, *vars. exc.* italicum
  - linicola
  - temulentum, *and var*]
- Agropyron Donianum
  - obtusum
  - pungens, *vars.*
- Lepturus incurvatus
- Hordeum sylvaticum
  - secalinum
  - arenarium
- Trichomanes radicans, *and var.*
- Adiantum Capillus-Veneris
- Asplenium fontanum
  - lanceolatum, *vars.*
  - Adiantum-nigrum, *vars*
  - acutum, Moore
  - Trichomanes, *var. and hybrid*
  - Ruta-muraria, *vars.*
  - germanicum
  - septentrionale
- Athyrium, *all except* Filix-fœmina
- Woodsia ilvensis
  - hyperborea
- Cystopteris, *all except* fragilis
- Polystichum lobatum, *vars.*
  - angulare, *vars.*
- Lastræa pumila
  - abbreviata
  - rigida
  - remota
  - uliginosa
  - spinulosa, *vars.*
  - dilatata, *vars.*
- Polypodium cambricum
- Gymnogramme leptophylla
- Ophioglossum lusitanicum
- Botrychium incisum
- Equisetum maximum, *vars.*
  - arvense, *vars.*
  - pratense
  - capillare
  - palustre, *vars.*
  - litorale
  - fluviatile
  - Moorei
  - trachyodon
  - variegatum, *and vars.*
- Lycopodium recurvum
  - annotinum
  - decipiens
- Isoetes, *all except* lacustris
- Chara, *all except*
  - fragilis
  - aspera
  - hispida
  - vulgaris
  - longibracteata
- Lychnothamnus stelliger
- Tolypella, *any except* glomerata
- Nitella, *all except*
  - translucens
  - flexilis
  - opaca

New Members, 1902.

SPENCER H. BICKHAM, F.L.S., Underdown, Ledbury.
J. B. DUNCAN, Bewdley, Worcestershire.
A. HOSKING, 48, Norwich Street, Cambridge.
ARTHUR SMITH, F.E.S., 5, Cavendish Street, Grimsby.

Resignations.

MRS. OVERTON, 1, Nevill Park, Tunbridge Wells.
JAMES T. POWELL, 8, South View, Poole Road, Parkstone.
R. LL. PRAEGER, National Library of Ireland, Dublin.

NOTE.—Copies of most of the back numbers of the Reports can be obtained from the Hon. Sec. at 6d. each.

List of Members.

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Arthur Bennett, F.L.S., 143, High Street, Croydon.
E. D. Bostock, F.L.S., Tixall Lodge, Tixall, Stafford.
Edward Cleminshaw, M.A., 7, Duchess Road, Edgbaston, Birmingham.
F. C. Crawford, F.R.S.E., 19, Royal Terrace, Edinburgh.
Albert J. Crosfield, Carr End, Reigate.
Mrs. Cotton, The Mount, Bishopstoke, Hants.
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Mrs. E. S. Gregory, Fairleigh School, Weston-super-Mare.
J. E. Griffith, F.L.S., F.R.A.S., Bryn Dinas, Upper Bangor, N. Wales.
George Goode, M.A., Lyndhurst, De Freville Avenue, Cambridge.
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Rev. W. R. Linton, M.A., Shirley Vicarage, Derby.
Rev. E. S. Marshall, M.A., F.L.S., Lavington Rectory, Petworth, Sussex.
Henry Tuke Mennell, F.L.S., The Red House, Park Hill Rise, Croydon.
D. Nicolson, Montpellier House, Wick, Caithness.
Dr. H. F. Parsons, Oakhyrst, 4, Park Hill Rise, Croydon.
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T. E Routh, Castle Donington, Derby.
Charles E. Salmon, F.L.S., Clevelands, Wray Park, Reigate.
Ernest S. Salmon, F.L.S., Clevelands, Wray Park, Reigate.
Alex. Somerville, B.Sc., F.L.S., 4, Bute Mansions, Hillhead, Glasgow.
R. S. Standen, F.L.S., Lindfield, near Hayward's Heath, Sussex.
H. Stuart Thompson, F.L.S., 253, Monument Road, Edgbaston, Birmingham.
Rev. C. H. Waddell, M.A., B.D., The Vicarage, Saintfield, Co. Down.
Charles Waterfall, 10, De Grey Street, Hull.
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Major A. H. Wolley-Dod, late R.A., Pyrmont, Common Road, Walton-on-Thames.

17 NOV 1903

THE
NINETEENTH ANNUAL REPORT
OF THE
WATSON
Botanical Exchange Club,
1902-1903.

REFEREES:

J. G. BAKER, F.R.S., F.L.S., 3, Cumberland Road, Kew Gardens, Surrey.

ARTHUR BENNETT, F.L.S., 5, Edridge Road, Croydon, Surrey.

REV. W. MOYLE ROGERS, F.L.S., Chetnole, Grosvenor Road, Bournemounth West.

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HON. SECRETARY:

HAROLD STUART THOMPSON, F.L.S., 16, St. Paul's Square, York.

"LABOR OMNIA VINCIT."

BIRMINGHAM:
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Peucedanum officinale, L. Landermere, Essex, v.c. 19?, 24th July, 1902.—R. S. Standen.

Galium Mollugo × *verum.* Hedge Bank, Malvern Link, v.c. 37, Worcester, 12th October, 1902.—Coll. R. F. Towndrow; comm. S. H. Bickham. No flower remaining on any specimen sent.—H.W.P. No flower, as you say, but I think it is correct, though nearer *Mollugo* than the Deal plant of Syme. Mr. Nicholson, of Kew, collected a fine series of this intermediate, but they have never been worked out.—A.B.

Asperula arvensis, L. Waste ground, near Docks at Grimsby, v.c. 54, June, 1902.—A. Smith.

Valerianella carinata, Loisel. Ponsanooth, Cornwall, v.c. 1, 14th August, 1902.—F. H. Davey.

Filago apiculata, G.E. Sm. Selham, v.c. 13, W. Sussex, 12th July, 1902.—E. S. Marshall, Also sent by Mr. C. E. Salmon.

Matricaria ——— . Waste ground, West Dock Reservation, Hull, E. Yorks., v.c. 61, June, 1902.—C. Waterfall. Is *M. disciformis,* D.C., an addition to Mr. Dunn's recent list of aliens. Named by Mr. Spencer Moore.—H.W.P.

Santolina Chamæcyparissias, L. Waste ground, West Dock Reservation, Hull, E. Yorks., v.c. 61, October, 1901.—C. Waterfall. Is *Anthemis altissima,* L, named by Mr. Spencer Moore. Vide also last year's report.—H.W.P.

Centaurea ———. Waste ground, West Dock Reservation, Hull, E. Yorks., v.c. 61, July, 1901.—C. Waterfall. Is C. *iberica,* Trev.—H.W.P.

Hieracium aurantiacum, L. Lodge Hill Cemetery, Selly Oak, Worcestershire, 15th November, 1902. I send specimens of this escape to put it on record, for it is likely to spread beyond the acre of rough turf it is now established on. I understand that a patch of it was planted in the cemetery five years ago, and this is the second year it has been noticed on the rough grass, which is occasionally mown, and hence the very stunted growth of these plants.—H. S. Thompson.

H. iricum, Fr. Cultivated roots from Ben Evenagh, Co. Londonderry, July, 1902.—C. H. Waddell. *H. anglicum*, Fr., not *H. iricum*.—E. F. Linton.

H. vulgatum, Fr. Wall on Lurgan road, Waringstown, Co. Down, 12th June, 1901.—H. W. Lett. *H. vulgatum*, Fr., stunted by dry situation.—E. F. L.

H. vulgatum, Fr. ? Railway bank, Somerset Road Station, Birmingham, Warwickshire, 15th Nov., 1902. Sent chiefly for the late flowering.—H. S. Thompson. These look like slender forms of *H. boreale*, which, of course, is a very late flowering species, and last season was probably in bloom in November in most of its habitats.—H. W. P. *H. boreale*, Fr., remarkably glabrous; but the late date will account for the specimens, which are possibly secondary shoots, being somewhat abnormal.—E. F. L. Specimens not distributed.—H. W. P.

H. sciaphilum, Uechtritz. Rocky wood, Rowallane, Saintfield, Co. Down, 9th Aug., 1902.—C. H. Waddell. There is clearly a mixture here, and I do not know whether any of the specimens are *H. sciaphilum*. One plant on each of the two lowest sheets is certainly a *murorum* form.—H. W. P. This is *H. diaphanoides*, Lindeb., with the exception of two specimens of *H. murorum*, L., which I place to var. *pellucidum*, Læstad. —E. F. L. *H. diaphanoides* not given in "Cybele Hibernica."—H. W. P.

H. Ogweni, Linton. Hort, Bournemouth; orig. Tregarth, Carnarvon, 2nd Aug., 1897.—E. F. Linton.

Hypochæris glabra, L. Slope of Malvern Hills, Colwall, v.c. 36, Hereford, 21st July, 1902.—S. H. Bickham. Vide "J. of B.," 1902, p. 264.—H. W. P.

Lobelia urens, L. Damp meadow S. of Lostwithiel, Cornwall, v.c. 2, 12th Aug., 1901.—F. H. Davey.

Erica ciliaris × *Tetralix* (*E. Watsoni*, Benth). Carnon Croft, near Perranwell, v.c. 1, W. Cornwall, 2nd Aug., 1899.—A. O. Hume. I think correctly named.—E. F. L.

E. mediterranea, L. Urrisbeg, Roundstone, Co. Galway, Ireland, 13th May, 1899.—D. T. Playfair.

Statice Limonium × *rariflora.* Bosham, Sussex, W., 1st Aug., 1901.—E. F. Linton. I notice from the Botanical Exchange Club report for 1901 that Mr. A. Bennett doubts the hybridity of this plant.—H. W. P.

S. auriculæfolia, Vahl., var. *occidentalis* (Lloyd). Newquay, Cornwall, 4th Sept., 1902.—F. H. Davey. The majority of these specimens Syme would have put under his *intermedia*, I expect; but I think that var. is too near *occidentalis*.—C. E. Salmon. The majority of the specimens referred to are the larger leaved plants with short scapes. They appear to me quite distinct from the other form, which is characterised by much longer scapes and narrower, more acute leaves; but Mr. Salmon finds that the two are connected by a series of intermediates and cannot be satisfactorily separated.—H. W. P.

Primula acaulis × *veris.* Barton, Bedfordshire, 18th April, 1902.—Miss D. M. Higgins. One or two of the specimens may be true primroses, but the majority are hybrids between the primrose and cowslip.—A. B.

P. scotica, Hook. Dunnet Links, Caithness, 17th Aug., 1902.—F. C. Crawford.

Centunculus minimus, L. Shore near Arisaig, Westerness, v.c. 97, 20th Aug., 1902.—C. E. Salmon.

Erythræa littoralis, Fr. Sandy heaths near the sea, Marazion, Cornwall, v.c. 1, 14th July, 1902.—A. Hosking. *E. Centaurium*, Pers. only.—H. W. P.

Gentiana baltica, Murbeck? Sandhills by the sea, Ballykinder, Co. Down, Sept., 1900.—Mr. Druce records it from sandhills at Newcastle, Co. Down (a locality not far from Ballykinder) in the "Irish Naturalist," 1899, p. 199—C. H. Waddell. Mr. Waddell's specimens accord fairly well with Murbeck's specimens from near Lund. In the Swedish specimens, however, the radical leaves are perfectly present, and his characters can be easily followed. In most British specimens one has to guess a good deal.—A. B. I do not feel any confidence in separating these plants; but I certainly think that the two top sheets are *campestris*, while the bottom one may perhaps be *baltica*. I think Mr. Salmon knows these plants.—W. H. B. I have shown these specimens to

Mr. C. E. Salmon, and he considers that although specimens collected at an earlier stage to show the radical leaves are desirable, yet there is little doubt but that all of them should be referred to *G. baltica*.—H. W. P.

Amsinchia lycopsoides, Lehm. Waste ground near Docks at Grimsby, v.c. 54, June, 1902.—Teste S. T. Dunn. A. Smith.

Linaria supina, Desf. Par, Cornwall, v.c. 2, 7th June, 1902.—F. H. Davey.

Scrophularia Scorodonia, L. Ponsanooth, Cornwall, v.c. 1, 26th June, 1901.—F. H. Davey.

Veronica verna, L. Thetford, W. Suffolk, 2nd June, 1902.—C. E. Salmon. Mr. Salmon sends a fine set of specimens of this scarce and easily overlooked plant.

Euphrasia latifolia, Pursh ? Between Tyn-y-groes and Llanelltyd, Merioneth, 28th June, 1902.—H. S. Thompson. *E. Rostkoviana*, Hayne, northern form.—F. T. I cannot think the specimen sent to me *Rostkoviana* pure and simple. The habit and leaf-cutting are much more like *E. brevipila*, and the leaves are fringed with numerous stiff, eglandular hairs, which I have never seen in *Rostkoviana*. On the other hand, there are numerous long-stalked glands, and I think it is pretty clearly a *brevipita* × *Rostkoviana* hybrid, in all essentials tallying with the Lawers plant (legit Cleminshaw) which Mr. Townsend has so determined. The flowers are also far too small for pure *Rostkoviana*.—E. S. M.

E. ———. Meadows by side of Loch Tay, Lawers, Mid. Perth, Aug., 1902.—E. Cleminshaw. I believe these to be hybrid forms. *Euphrasia brevipila* × *Rostkoviana* ?—F. T.

Orobanche amethystea, Thuill. Above brickfield, West Looe, Cornwall, 9th August, 1900.—A. O. Hume. *O minor*, Sutton.—A. B.

Pinguicula grandiflora, Lam. Brandon Mt., S. Kerry, 20th June, 1902 : Connor Hill, S. Kerry, 23rd June, 1902.—E. S. Marshall.

THE WATSON

BOTANICAL EXCHANGE CLUB.

REPORT FOR 1902-1903.

The number of plants sent in this year by 25 members is 2,137, which is in excess of any recent year's contributions, with the exception of 1900-1901. Furthermore, the Club is indebted to the Rev. E. F. Linton for a parcel of 157 plants, including many *Rubi* and *Salices*, and to Mr. J. E. Bagnall, A.L.S., who has presented a further set of 83 specimens, mainly *Rubi*.

Among the more interesting plants contributed are a hybrid *Carex* (*acutiformis*, Ehrh. × *rostrata*, Stokes), which appears to be now noticed for the first time, and the well marked *Scirpus maritimus*, L., var. *monostachys*, *Sonder*.

Of the specially critical genera, *Rubi* and Batrachian *Ranunculi* are fairly represented, but, as happened last year, *Rosæ* and *Hieracia* have been neglected.

The aliens again form a feature of the year's contributions, numbering no less than 297 specimens.

The number of sheets supplied of each species appears more satisfactory than in former years although still, in some cases, blanks in the desiderata lists could have been filled if a more liberal quantity had been furnished.

Notwithstanding the admonitions of my predecessors, a lack of uniformity in the method of preparing specimens continues very apparent, for while several members have sent in exemplary parcels, and in some cases have even taken the trouble of mounting their plants, others on the contrary, fortunately not many, have once more sent in a series either carelessly gathered or badly dried. Moreover, in one or two instances, Nos. 3b and 3g of the Club Rules have been ignored, an omission which, if it became general, would substantially increase the clerical work of the distributor. I am glad to be able to add that the Rev. W. Moyle Rogers notes a marked improvement in the material of the *Rubi*.

Although it is desirable in all cases to prepare for the herbarium specimens as complete as possible, it is to be regretted that a number of uncommon orchids should have been sent in which had been dug up with the tubers entire. In the case of plants of this order the tubers add little, when dried, to the value of the specimens, and considering the rapid diminution in the numbers of individuals of these plants in Britain, even of the less rare species, it behoves all who have a regard for the living flora of the country to carefully avoid hastening their extirpation.

The thanks of the club are again due to the following gentlemen who have kindly examined the critical species :—Mr. A. Bennett, Rev. W. Moyle

Rogers, Rev. E. F. Linton, Rev. E. S. Marshall, Rev. W. R. Linton, Messrs. H. and J. Groves, Mr. F. Townsend, Mr. W. H. Beeby, Mr. C. E. Salmon, and Mr. Spencer Moore.

Plants may be assumed to have been correctly named by the senders when no critical opinion is quoted.

The following is a list of the contributing members :

Mr. W. Bell	52
Mr. S. H. Bickham	263
Mr. E. Cleminshaw	48
Mrs. Cotton	41
Mr. F. C. Crawford	133
Mr. A. J. Crosfield	16
Mr. F. H. Davey	171
Mr. J. B. Duncan	39
Miss D. M. Higgins	21
Mr. A. Hosking	81
Mr. A. O. Hume	25
Mr. A. B. Jackson	36
Rev. Canon Lett	26
Rev. E. S. Marshall	140
Dr. D. T. Playfair	160
Mr. H. W. Pugsley	73
Rev. H. P. Reader	60
Mr. T. E. Routh	27
Mr. C. E. Salmon	39
Mr. A. Smith	114
Mr. R. S. Standen	46
Mr. H. S. Thompson	73
Rev. C. H. Waddell	101
Mr. C. Waterfall	293
Major A. H. Wolley-Dod	59
	2,137

H. W. PUGSLEY,
Distributor for the year 1902-1903.

The attention of Members is directed to the following new Rule :—

ALIENS are not accepted by the Club unless new to the Vice-County where gathered, in which case not more than six specimens should be sent. Particular care should be given to these plants both as regards drying and as regards notes of occurrence, to assist the Referees in naming them.

The thanks of the club are due to Mrs. Cotton, Mr. Mennell, and an anonymous donor, for donations of £1 each to our funds; and we are also indebted to Major Wolley-Dod for not charging his expenses incurred last year in the arduous duties of Distributor.

H. STUART THOMPSON,
Hon. Secretary.

Anemone apennina, L. Wimbledon Park, Surrey, April, 1903. Now on the verge of extinction unless it occurs in other places in the park with which I am not acquainted.—H. W. Pugsley.

Ranunculus cambricus (A. Bennett). Lake Coron, Bodorgan, Anglesea, v.c. 52, 30th June, 1900.—C. Waterfall. Apparently not any fruiting.—H.W.P. Yes, but miserable specimens. The late Herr Freyn thought it might be the *R. carinatus*, Schur.? (*R. confusus*, G. and G. var.), but I do not agree. See Watson Exchange Club Report, 1892-3, p. 2, and Rep. Bot. Ex. Club, 1900-01, p. 618.—A. Bennett. We think, in the absence of evidence to the contrary, this is best placed under *R. fluitans*, Lam.—H. and J. Groves.

R. ———. Pond, Oadly, Leicestershire, 26th July, 1902.—W. Bell. A form of *R. heterophyllus*, Weber ex p. —H. and J. G.

R. ———. (1) Stream near the Trent, Castle Donnington, Leicestershire, 25th June, 1902. (2) Hunington, Leicestershire, 16th June, 1902.—T. E. Routh. Both *R. heterophyllus*, Weber ex p.—H. and J. G.

R. floribundus, Bab.? Stream at Sutton Park, Warwickshire, 22nd June, 1901. For naming only, —H. S. Thompson. *R. peltatus*, Schrank.—H. and J. G.

R. Flammula, L., b. *radicans*, Nolte. Pittdown, Sussex, 18th September, 1902.—R. S. Standen. I have not seen Nolte's plant; but this is not the Scotch lake-side plant, simulating *R. reptans*, L., which has been so-called. I should merely name it "*R. Flammula*, rooting state."—E. S. Marshall.

R. acris, L. var. Hickling Marshes, Norfolk, v.c. 27, June, 1902.—Mrs. Cotton. Is *R. Borœanus*, Jord.—F. Townsend.

Fumaria muralis, Sond.? Weed in garden, Saintfield, co. Down, October, 1895, and August, 1896. For naming only.—C. H. Waddell. One of these is *F. confusa*, Jord; the other, with darker flowers, a form which I have seen from various Irish localities, but not from Great Britain. It is very near to *F. confusa*, and perhaps only a form or variety of it. I hope to report further on this plant on a future occasion.—H.W.P.

F. confusa, Jord. Llanfairfechan, Carnarvon, 16th September, 1902. A small flowered autumnal form.—H. W. Pugsley.

F. officinalis, L. (1) Magheralin, co. Down, August, 1898. (2) Castor's Bay, co. Armagh, July, 1896. For naming only.—C. H. Waddell. Yes. both *F. officinalis*, L.—H.W.P.

F. Vaillantii, Loisel.? Waste land, Harborne, Warwickshire, August, 1892. For naming only.—H. S. Thompson. No, *F. officinalis*, L. only; one specimen approaching *F. Wirtgeni*, Koch.—H.W.P.

Arabis ciliata, R.Br. Castlegregory, S. Kerry, 24th June, 1902.—E. S. Marshall. A few of the specimens sent have the leaves and stem more or less hairy, and would therefore appear referable to the var. *hispida*, which Syme distinguished from the type by its leaves being clothed with forked and trifurcate hairs, instead of glabrous, except for the ciliate margins. An interesting note on this plant appears in "J. of B." for August, 1903.—H.W.P.

A. ciliata, R.Br., var. *hispida*, Syme. Sandhills, N. of Castlegregory, S. Kerry. With the type, but more plentiful. 24th June, 1902.—E. S. Marshall.

Draba rupestris, R. Br. On rocks near the summit of Ben Lawers, Mid Perth, Aug, 1902.—E. Cleminshaw.

Erophila præcox, D.C. (=*E. brachycarpa*, Jord.) Downs, Houghton, v.c. 13, West Sussex, 3rd May, 1902. —E. S. Marshall.

Sisymbrium Loiselii, L. Waste ground, Darenth, W. Kent, July, 1898. Named by S. T. Dunn.—D. T. Playfair.

Lepidium virginicum, L. Waste ground, West Dock Reservation, Hull, E. Yorks, v.c. 61, September, 1902.—C. Waterfall. Pods exceptionally small for this species.—H.W.P.

L. perfoliatum, L. Waste ground near Docks at Grimsby, v.c. 54, June, 1902. Teste. S. T. Dunn.—A. Smith.

Cakile maritima, Scop., var. *integrifolia*, Koch? Exmouth Sands, v.c. 3, S. Devon, 22nd September, 1902.—S. H. Bickham. Agrees well with the description of *C. maritima*, Scop., b. *integrifolia*, Koch, in Synopsis Fl. Germ., ed. 3.—H.W.P.

Viola ———. Fields, Hawkesyard, Staffs., May, 1902.—H. P. Reader. V. *ericetorum*: one of the numerous forms of this variable plant. One piece looks as though it might possibly be × *lactea*, but the leaves are too badly laid out for me to form an opinion.—W. H. Beeby.

V. *Riviniana*, Reichb., var. *nemorosa*, Neum., W. and M. Combe Wood, Houghton, v.c. 13, W. Sussex, 3rd May, 1902. Spur coloured.—E. S. Marshall. Of one of three sheets sent to him, Mr. Beeby says: "This I consider correct, the other specimens being scarcely so good; but this var. passes into the ordinary form."

V. ———. New Brighton sandhills, Cheshire, June, 1899. For naming only.—E. Cleminshaw. Is *V. ericetorum*, Schrader.—H.W.P.

V. carpatica, Borbas? Lane near Llanuwchllyn, Merioneth, 26th June, 1902. — H. S. Thompson. *V amœna*, Symons, forma.—E. G. Baker.

Dianthus ———. Waste ground, West Dock Reservation, Hull, E. Yorks, v.c. 61, August, 1902.—C. Waterfall. Is *D. guttatus*, M. Bieberstein in Flora Taurico-Caucasica, I., p. 328, and III., p. 300—an ally of *D. chinensis*, L. Figured in Reichenbach's Icones. No. 462. This plant is a native of S. Russia, and was probably introduced with grain from Odessa. Additional to Mr. Dunn's recent list of Alien Flora.—H. W. P.

Silene italica, Pers. Jersey, May, 1902. Coll. H. Weaver. Comm. A. B. Jackson. No, *S. nutans*, L. Vide Mr. Salmon's remarks in supplement to report for 1899-1900.—H.W.P.

Cerastium tetrandrum, Curtis? Penmaenpool Railway Station, Merioneth, 28th June, 1902. For naming only. —H. S. Thompson. Yes, *C. tetrandrum*.—H. W. P.

Stellaria media, Cyr. (apetalous form.). Woods, Armitage, Staffs., July, 1902.—H. P. Reader. This appears to be a shade form of *S. Borœana*, Jord., similar to the plant from Shoeburyness described by Major Wolley-Dod in last year's report.—H. W. P.

Stellaria umbrosa, Opiz. Hedges, Armitage, Staffs. June, 1902.—H. P. Reader. *S. neglecta*, Weihe in Reich. Fl. Germ. Exc., 1830-3=*S. media*, v. *major*, Koch, Syn. Fl. Germ. et Helv. ed. I. p. 118, 1835. I combine with this *S. umbrosa*, Opiz. (1852) which is a 'nomen nudum,' and call this *neglecta*,—A.B. A few of these specimens have hairy sepals and pedicels and should therefore be referred, I think, to var. *decipiens*, Marshall. Vide "J. of B," 1902, pp. 214-5 and 390.—H.W.P.

S. umbrosa, Opiz. Ilfracombe, N. Devon, June, 1901.—H. W. Pugsley. A new vice-county record.

Sagina maritima, Don. v. *debilis*, Jord. Sandy road near the sea, Weston-super-Mare. v.c.6. N. Somerset, 29th June, 1902. On specimens of this gathering Mr. A. Bennett reports. "Yes, this seems to answer fairly well to Jordan's description. A.B."—S. H. Bickham.

Buda marina, Dum. Salt marsh, Salt End Common, Hedon, E. Yorks. v.c.61. August, 1902.—C. Waterfall. Mr. Bennett declines to confirm the naming of these specimens, which, I believe, are a mixture of *B. marina* and *B. media*. Not distributed.—H.W.P.

B. marina, Dum. Native in great abundance on the salt muddy flats near Grimsby. July, 1902.—A. Smith. No., this is *B. media*, Dum., only. The specimens should be gathered with ripe fruit and showing the perennial rootstock.—H.W.P.

Hypericum undulatum, Schousb. St. David's, Pembrokeshire, August, 1902.—Coll. E. Armitage, comm. A. Hosking. Recorded for this locality in "J. of B." 1903, p. 245.—H.W.P.

Geranium phœum, L. Banks of river, Ponsanooth, Cornwall. v.c.1. 6th June, 1902. — F. H. Davey. Presumably an introduction.—H.W.P.

G. Robertianum, L., var. *purpureum*, auct. angl. Pagham Shore, W. Sussex. 12th July, 1902.—A. H. Wolley-Dod. Yes.—A.B.

Impatiens noli-me-tangere, L. Banks of Ravensbourne, Bromley Hill, W. Kent. 25th July, 1901.—D. T. Playfair. Recorded in the "Flora of Kent" for this locality. It would be interesting to know whether it is of recent introduction.—H.W.P.

Acer leiocarpon. Thurcaston, Leicestershire. v.c.55. 26th June, 1902.—Coll. Rev. T. A. Preston, comm. W. Bell. This is *A. campestre*, L., v. *leiocarpon*, Wallr. of the London Catalogue, distinguished by its glabrous fruits.—H.W.P.

Ulex strictus, (Mackay)? Stone quarry below the Wrekin, Shropshire, 9th May, 1903. For naming only. —H. S. Thompson. Not Mackay's plant, which has tender spines, *i.e.* you can crush them in your fingers and hardly feel they are spines—and they are erect, not patent.—A.B.

Trifolium agrarium, L. Field near Brown Knowl, Cheshire, 3rd August, 1902.—A. H. Wolley-Dod. *T. agrarium*, L. = *T. aureum*, Poll. Hist. Pl. Palat., 2, p. 344.—H.W.P.

Lotus corniculatus, L., var. *villosus*, Ser. W. Wittering, v.c.13. W. Sussex, 9th June, 1902.—E. S. Marshall. As I had gathered for var. *villosus* a much more hairy and erect form than this, I referred it, although it accorded with Babington's description, to Mr. A. Bennett, who does not agree to the varietal name, and remarks that Seringe's plant is so villous that it is sometimes mistaken for *L. hispidus*. Specimens not distributed.—H.W.P.

Coronilla scorpioides, Koch. Waste ground near Docks at Grimsby, July, 1902. Teste S. T. Dunn.—A. Smith.

Vicia Orobus, D.C. Near Llanuwchllyn, Merioneth. v.c.48. 29th June, 1902.—E. Cleminshaw. A fine series of this beautiful plant has been sent in by Mr. Cleminshaw and also by Mr. H. S. Thompson.

Lathyrus angulatus. Waste ground near Docks at Grimsby, v.c. 54, June, 1902.—A. Smith. This appears to be *L. sativus*, L., a S. European species, which usually bears solitary flowers.—H.W.P.

Spirœa Ulmaria, L., var. *denudata*, Bœnn. Ditch banks near Cottingham, E. Yorks, v.c. 61, August, 1902. —C. Waterfall. Passed by Mr. A. Bennett.

Rubus idœus, L., var. *asperrimus*, Lees. Near Bournemouth, S. Hants, 13th June, 1896.—E. F. Linton.

The following fruticose Rubi, with the exception of a few already referred, have all been submitted to the Rev. W. Moyle Rogers, who agrees to the names suggested on the labels except in certain instances where the necessary notes have been added.

Rubus Bakeri, F. A. Lees. Open sunny places, Aughnadarragh, Saintfield, Co. Down, 4th August, 1902. —C. H. Waddell.

R. mercicus, Bagnall. Near Minworth, Warwickshire, v.c. 38.—J. E. Bagnall.

R. thyrsoideus, Wimm. Dry gravelly ground, Kelsey Hill Gravel-pits, near Burstwick, E. Yorks, v.c. 61, 20th September, 1902. All fide Rev. W. M. Rogers.—C. Waterfall.

R. leucostachys, Schleich. Near Ross, Herefordshire, 11th August, 1893.—Coll. W. M. Rogers. Comm. E. F. Linton.

R. curvidens, A. Ley. Castle meadow wood, Herefordshire, July, 1895.—Coll. A. Ley. Comm. E. F. Linton.

R. Lettii, Rogers. Cascum, P. of Aghaderg, Co. Down, 15th August, 1902.—H. W. Lett.

R. Lettii, Rogers. Side of lane, Saintfield, Co. Down, 2nd August, 1902.—C. H. Waddell.

R. infestus, Whe. Crosemere, Salop, 26th September, 1892.—E. F. Linton.

R. hibernicus, Rogers. Roadside hedge, Doran's Rock, Saintfield, Co. Down, 29th July, 1902.—C. H. Waddell.

R. dunensis, Rogers. Roadside, Saintfield, Co. Down, 29th July, 1902.—C. H. Waddell.

R. dunensis, Rogers. Cascum, P. of Aghaderg, Co. Down, 15th August, 1902.—H. W. Lett.

R. oigoclados, Muell. and Lefv. Maxstoke, Warwickshire, v.c. 38, July, 1886.—J. E. Bagnall.

R. Bloxamianus, Coleman. Hartshill, Warwickshire, v.c. 38, August, 1885.—J. E. Bagnall.

A. scaber, W. and N. Hartshill, Warwickshire, v.c. 38, August, 1887, and September, 1889.—J. E. Bagnall.

R. fuscus, W. and N. (form). Blackslough, Somerset, 9th August, 1892.—E. F. Linton. Best under *R. fuscus*. W. and N., I suspect, though further from the type than the "Convent" plant.—W.M.R.

R. ———— "A." Pitt's Wood, Harborne, Worcestershire, 25th June, 1901.—H. S. Thompson. This strongly recalls other British specimens named *R. hostilis*, Muell. and Wirtg. by Dr. Focke; but we can hardly assign that name to it with any confidence, without seeing maturer pieces of both stem and panicle. Fully developed leaves especially are desirable (with note as to whether they are dark green and shining above when fresh) and panicle showing direction of *fruiting* sepals. *R. hostilis* would be a new record for Worcestershire.—W. M. R.

R. saxicolus, P. J. Muell. Open place, Saintfield, Co. Down, 15th August, 1902.—C. H. Waddell. It would be misleading, I fear, to let this be distributed thus labelled without comment It is no doubt the same form which was sent unnamed to the Club by Mr. Waddell in 1895, and is referred to by me in the Report for that year as "Allied, I think, to *R. saxicolus*, P. J. Muell, though more strongly armed and thus diverging from it in the direction of *R. Marshalii*." It must, moreover, be remembered that Mueller's *saxicolus* is one of our least known species (see Handbk. Brit. Rubi, p. 90), and I am no more able now than I was in 1895 to say how nearly allied to it this plant of Mr. Waddell's may be.—W. M. R.

R. ———. "B." Pitt's Wood, Harborne, Worcestershire, 25th June, 1901.—H. S. Thompson. *R. dumetorum*, W. and N., probably var. *ferox*, Whe.; too young for certainty.—W. M. R.

R. ———. Rotton Park Reservoir, Birmingham, Warwickshire, 14th July, 1901.—H. S. Thompson. *R. dumetorum*, W. and N., var. uncertain. Perhaps a hybrid.—W. M. R.

R. ———. Roadside near Eastnor, Worcestershire, 29th June, 1901.—H. S. Thompson. Looks as if it might be *R. corylifolius* × *dumetorum*, but specimens collected too early in season for definite determination.—W. M. R.

R. Balfourianus, Blox. Maxstoke, Warwickshire, v.c. 38, Aug. 1886.—J. E. Bagnall. I suppose correctly named though hardly identical with Bloxam's type as contributed by Mr. Bagnall to the fascicles of British Rubi in 1893, or as represented by a specimen of Bloxam's own collecting now in my herbarium.—W.M.R.

Rosa collina, Jacq. Ponsanooth, Cornwall, v.c. 1, 16th June, 1901. So named by Mr. J. G. Baker, but he says, "not exactly *collina* of Jacques."—F. H. Davey. I hardly think Mr. Baker can have seen proper specimens of this plant, which appears to have semi-double flowers, and is, I believe, a cultivated form of *R. alba*, L. It is, no doubt, an escape in Cornwall. The specimens should have been completed by the addition of the fruits and portions of the barren shoots showing the prickles.—H. W. P.

Cratægus Oxyacantha, L. var. *laciniata*, Wallr. By the Mole above Cobham, Surrey, 28th June, 1902.—A. H. Wolley-Dod. Passed by Mr. A. Bennett.

Saxifraga nivalis, L. Ben Lawers, 3,500 feet, Mid Perth, August, 1902.—E. Cleminshaw.

S. umbrosa, L. var. *serratifolia*, Don. Gap of Dunloe, N. Kerry, 26th June, 1902; near Cloghane, S. Kerry, 19th June, 1902.—E. S. Marshall. I have not seen a plant named by Don, but it seems to agree fairly (as well as these extremely varying plants do) with the idea in point of Don's plant.—A.B.

S. cernua, L. Ben Lawers, 3,500 feet, Mid Perth, August, 1902.—E. Cleminshaw.

S. Sternbergii, Willd. Limestone rocks, Ballyryan, co. Clare, Ireland, 10th May, 1899,—D. T. Playfair, Confirmed by Mr A. Bennett.

S. decipiens, Ehrh. Brandon Mountain, S. Kerry, above 2,000 feet, 20th June, 1902. This is the prevailing form on the small portion of this huge mass which we were able to explore. Nothing at all like the Scotch *sponhemica* was met with.—E. S. Marshall. Seems correct, and to agree with Mr. Baker's idea of Ehrh.'s plant.—A.B.

Callitriche obtusangula, Le Gall. Ditches, near Belfast Harbour, co. Down, August, 1900.—C. H. Waddell. A few pieces among the specimens may be referred to *C. obtusangula*, but most of it is a poor state, often sterile, of a plant which may be a hybrid with *C. vernalis*. It would be desirable for it to be carefully collected with this possibility in view.—H. and J.G. Specimens not distributed.—H.W.P.

Epilobium roseum × *montanum*. Garden at Castle Donington, Leicestershire, July, 1901.—T. E. Routh. *E. montanum*, L.—E.S.M. Not distributed.—H.W.P.

E. Lamyi, F. Schultz. Edge of a copse, Bransford, near Malvern, v.c. 37, Worcester, 1st September, 1902.—R. F. Towndrow and S. H. Bickham. Correct. —E.S.M. A new county record.—H.W.P.

E. palustre × *parviflorum*. Marshy edge of a pond, Mathon, v.c. 37, Worcester, 13th October, 1902.—R. F. Towndrow and S. H. Bickham. Correct.—E.S.M.

Œnanthe fluviatilis, Coleman. River Itchen, Bishopstoke, Hants, v.c. 11, July, 1902. — Mrs. Cotton. A beautifully dried set of specimens, but the addition of the submerged leaves is desirable.—H.W.P.

Ligusticum scoticum, L. Bennane Head, Ayrshire, 3rd August, 1902.—F. C. Crawford.

Mentha rotundifolia, Huds. Ponsanooth, Cornwall, v.c. 1, 17th September, 1902.—F. H. Davey. This looks like *M. alopecuroides*, Hull.—H. W. P. Yes, *alopecuroides*. —W. R. Linton.

M. pubescens, Willd. Banks of the Leigh Brook, Old Storridge, v.c. 37, Worcester, 1st September, 1902. Coll. R. F. Towndrow. Comm. S. H. Bickham. Matches my specimen of *pubescens*.—W. R. L.

M. gentilis, L., var. *Pauliana* (F. Schultz). Roadside, Ponsanooth, Cornwall, v.c. 1, 19th September, 1902. Passed by A. Bennett, F.L.S.—F. H. Davey.

Salvia verticillata, L. Hayes Common, Kent, v.c. 16, 17th June, 1901.—D. T. Playfair. The entire leaved form.—H. W. P.

S. verticillata, L. Roadside, Pickhurst, Bromley, Kent, v.c. 16, 8th July, 1901.—D. T. Playfair. The form with lyrate leaves.—H. W. P.

Herniaria glabra, L., var. *subciliata*, Bab. Hedgerows and banks, the Lizard, Cornwall, v.c. 1, 9th July, 1902. —A. Hosking. This is *H. ciliata*, Bab. Mr. Davey, in his "Tentative List of Cornish Plants," questions whether any other Herniaria grows in the county, although the var. *subciliata* of *H. glabra* was formerly recorded.—H. W. P.

H. glabra, L., var. *subciliata*, Bab. Bel Royal, Jersey, 3rd June, 1901.—Coll. P. M. Playfair. Comm. D. T. Playfair A form of *H. glabra*, perhaps hardly worthy of varietal distinction.—H. W. P.

H. *glabra*, L., var. *subciliata*, Bab. Guernsey, May, 1901. Two gatherings.—Coll., P. M. Playfair. Comm. D. T. Playfair. Both of these gatherings are *H. ciliata*, Bab., and identical with the form found at the Lizard. As pointed out by Syme in "English Botany," the degree of hairiness in these plants in a less certain character than the habit of growth, the shape of the leaves, and the size and whiteness of the stipules. *H. ciliata* was originally recorded for Guernsey by Babington, who does not appear to have noticed any other form there. In Mr. Marquand's recent Flora, however, it is stated to be rare and local, while *H. glabra* is of frequent occurrence. It is curious that Babington should have met with the rare form and missed the common one.—H.W.P. Good drawings and descriptions of these perplexing plants may be found in the excellent new *Flore de la France*, etc., by L'abbé H. Coste.—H. S. Thompson.

Chenopodium Vulvaria, L. Grimsby, v.c. 54, N. Lincoln, July, 1902.—A. Smith.

Atriplex littoralis, L., var. *serrata*, Moq. Waste ground, West Dock Reservation, Hull, E. Yorks, v.c. 61, September, 1902.—C. Waterfall. Rightly named.—E. F. L.

Suæda altissima, Pall. Waste ground, West Dock Reservation, Hull, E. Yorks, v.c. 61, Aug., 1902.—C. Waterfall.

Polygonum aviculare, L., var. ———? Gravel shore of Rotten Park Reservoir, Warwickshire, 12th October, 1901.—H. S. Thompson. Very young, may be *rurivagum*, or perhaps rather *arenastrum*.—W. R. L. Not distributed. H. W. P.

P. maculatum, Trim. and Dyer. Potato patch, Old Storridge Common, Worcestershire, v.c. 37, July, 1902. Fide R. F. Towndrow.—C. Waterfall. Agrees with the description of *P. maculatum* and also with plants so named in my herbarium.—W. R. L.

Rumex maritimus, L. Damp ground about old brick ponds, the first Mill Lane, Anlaby Road, Hull, E. Yorks, v.c. 61, Sept., 1902.—Coll. S. Mason. Comm. C. Waterfall. Among the plants sent is one specimen of *R. limosus*, Thuill. These two species appear frequently to grow in the same localities.—H. W. P.

Salix fragilis×*pentandra*. Brown Knowl, Cheshire, 3rd August, 1902.—A. H. Wolley-Dod.

S. aurita-viminalis × *purpurea*, sponte. Hort. Bournemouth, 8th May and 1st July, 1900.—E. F. Linton.

S. repens×*purpurea*, arte creata. Hort. Bournemouth, April and 11th July, 1900.—E. F. Linton.

S. Myrsinites × *phylicifolia*, sponte.—Hort. Bournemouth, 14th June and 1st July, 1898.—E. F. Linton.

S. Myrsinites×*phylicifolia*, arte. Hort. Bournemouth, 5th May and 1st July, 1898.—E. F. Linton.

S. herbacea × *repens* (=*S. cernua*, Linton). Hort. Bournemouth. Orig. Little Craigindal, S. Aberdeen, 30th July, 1897.—E. F. Linton.

S. reticulata, L. Ben Lawers, 3,500 feet, Mid. Perth, Aug., 1902.—E. Cleminshaw.

Ceratophyllum demersum, L. Pond in Moccas Park, near Hereford, v.c. 36, 19th Aug., 1902.—S. H. Bickham. Passed by Mr. A. Bennett.

Malaxis paludosa, Sw. Among sphagnum, New Forest, Hants, 14th July, 1900.—D. T. Playfair.

Epipactis violacea, Boreau. Lindfield, Sussex, v.c. 14, 20th Aug., 1902. Fide C. E. Salmon.—R. S. Standen.

E. atrorubens, Schultz. Rocky slopes, Great Orme's Head, v.c. 49, July, 1891.—S. H. Bickham. By a curious mixture all the specimens sent are *E. palustris*, which I hardly think came from the Great Orme. Not distributed.—H. W. P.

Orchis laxiflora, Lam. Grand Mare, Guernsey, 31st May, 1901.—Coll. P. M. Playfair. Comm. D. T. Playfair.

Allium oleraceum, L. Near Sprotborough, S.W. Yorks, v.c. 63, July, 1901.—C. H. Waddell.

A. triquetrum, L. Ponsanooth, Cornwall, v.c. 1, 28th May, 1902.—F. H. Davey.

Juncus balticus, Willd. Dunnet Links, Caithness, 17th August, 1902.—F. C. Crawford.

Alisma Plantago-aquatica, L. var. *lanceolatum*, Afz. Canal, Blaby, Leicestershire, Sept., 1902.—Coll. W. A. Vice ; Comm. W. Bell. The idea of the original author was, I believe, a small plant, but Kew specimens have been distributed as large as this.—A. B.

Damasonium stellatum, Pers. Chailey Common, Sussex, v.c. 14, 15th Aug., 1902.—R. S. Standen.

Potamogeton heterophyllus, Schreb. Loch Broom, Pitlochry, E. Perth, Aug., 1901. — E. Cleminshaw. Confirmed by Mr. Bennett.

P. Friesii, Rupr. Lily Bay, Lake Windermere, Lancashire, v.c. 69, Aug., 1895.—C. Waterfall. May be, but poor material to go on.—A.B. A vice-county record, if correct.—H. W. P.

Ruppia spiralis, Hartm. Loch Stennis, Orkney, 6th Sept., 1902.—F. C. Crawford. A beautifully dried series of this interesting plant.—H. W. P.

Scirpus maritims, L., var. *monostachys*, Sond. Swanpool, near Falmouth, 10th Sept., 1902; also Perranwharf, 26th July, 1901. Both in v.c. 1. I appear to have been the first to discover this interesting variety in this country. It was recorded by Mr. A. O. Hume, C.B., in the "J. of B.," April, 1901, p. 145. Doubtless it occurs in other counties, but has hitherto been overlooked. In all I have now found it in five places in Cornwall.—F. H. Davey. As this name is not in the London Catalogue, ed. 9, it will be well to give the reference, viz., *S. maritimus*, L., d. *monostachys*, Sonder, Flora Hamburgensis, p. 27, 1851.—A. B. In August I collected a series of this plant, growing with the type and the var. *compactus*, Koch., in an old brickpond at Hobmoor, York. —H. S. Thompson.

Kobresia caricina, Willd. Ben Laoigh, Perthshire, v.c. 87, 29th July, 1902. F. C. Crawford.

Carex axillaris, Good. Stourport, Worcestershire, June, 1901.—J. B. Duncan. Yes.—A.B.

C. paniculata × *remota* (=*C. Bœnninghausiana*, Weihe). Killarney, N. Kerry, 27th June, 1902.—E. S. Marshall.

C. *ovalis*, Good, var. *bracteata*, Syme. Damp hollows on Malvern Link Common, v.c. 37, Worcester, 9th July, 1902.—S. H. Bickham. Also sent by Mr. Waterfall. The two lots of *C. ovalis* from Malvern Link are both referable to var. *capitata*, Sonder (an older name than Syme's). Only this summer I gathered this var. in Kerry with bracteate and ebracteate heads on the same individual.—E. S. M.

Carex ———. Little Cotes, near Grimsby, v.c. 54, July, 1902. This species is named by Dr. F. A. Lees *C. stricta* (=*C. Hudsonii*); other botanists to whom I have referred it vary in opinion, though some confirm Dr. Lees' naming. I shall be glad if a definite determination can be made—A. Smith. Too young. *C. acuta*, v. *gracilis* vel *C. stricta*, Good? — A. B. Though Mr. Bennett very properly declines to definitely name such immature and such fragmentary specimens, I think there is little doubt but that Dr. Lees' naming will prove correct. The specimens should have shown a portion of rootstock.—H. W. P.

Carex acuta, L., forma ——— ? Cropston Reservoir, Leicestershire, 10th June, 1902.—W. Bell. *C. Goodenovii*, Gay.—A.B. *C. acuta*, L., form with rather obtuse and shorter glumes to the fruit; it seems to agree with the *C. tricostata* of Fries, in Summ. Veg. Scan., and with plate of same in Andersson's Cyper. Scandinaviæ.—C. E. S. *C. acuta*, L.; *C. tricostata*, Fries, is at Kew, two sets of culms authenticated by him; they have very short spikes, unusually dense; this does not approach them.—C. B. Clarke.

C. acuta, L., varying towards var. *prolixa*, Fr. Edge of River Avon, Tewkesbury, Gloucestershire, v.c. 33, July, 1902.—C. Waterfall. Apparently sterile. I do not see that the nuts have swollen at all, the fruit seems quite inflated and hollow. *C. prolixa*, Fr. has its fruits perfect and fertile. I am inclined to call this a hybrid, *i.e.* *C. paludosa* × *rostrata*, or perhaps more truly, *rostrata* × *paludosa*. I do not find this mentioned in Richter's Plant. Europ., but he has a *riparia* × *rostrata*. I see the London Catalogue has *acutiformis*, Ehrh. as an earlier name for *paludosa*. I do not find this hybrid (*acutiformis* × *rostrata*) in the latest Swedish or German Floras.—A. B. Mr. Waterfall's sedge seems to me to show excellent evidence of both parents, *i.e. rostrata* and *paludosa*, and is clearly sterile.—E. S. M.

C. tomentosa, L. Near Fairford, Gloucester, v.c. 33, June, 1902.—Coll. J. Taylor. Comm. A. B. Jackson.

C. panicea, L., var. *tumidula*, Læst. Near Cloghane, S. Kerry, 19th June, 1902.—E. S. Marshall.

C. ———. Damp wood, Tyn-y-groes, near Dolgelly, Merioneth, 28th June, 1902. For naming only.—H. S. Thompson. Is *C. lævigata*, Sm., immature. I believe new for Merioneth.—H. W. P.

Phalaris minor, Retz. Waste ground near St. Heliers, Jersey, 19th July, 1897.—Coll. F. Picquet. Comm. D. T. Playfair. In the "J. of B." for February, 1900, Mr. C. R. P. Andrews pointed out the probability of this species being a true native in the Channel Islands.—H. W. P.

Phalaris aquatica, Desf. Perranwell Station, v.c. 1, W. Cornwall, 7th July, 1900. Of several years standing.—F. H. Davey. Passed by Dr. A. B. Rendle.

Alopecurus hybridus, Wimmer (= *A. pratensis* × *geniculatus*). Damp meadow, Chesford Bridge, Kenilworth, v.c. 38, 27th July, 1902. A. B. Jackson and H. Bromwich. Vide "J. of B.," 1901, p. 232, and Report of Bot. Exch. Club, 1900, p. 650.—H. W. P.

Agrostis palustris, Huds.? (1) Banks of R. Parret, Somerset, July, 1889. (2) Bradnock's Marsh, Warwickshire, 13th July, 1901.—H. S. Thompson. Both passed as such by Mr. A. Bennett.

Gastridium australe, Beauv. Trefusis Fields, Falmouth, Cornwall, v.c. 1, 28th June, 1901.—F. H. Davey.

G. australe, Beauv. Cuckfield, Sussex, v.c. 13 or 14? 25th August, 1902.—R. S. Standen.

Kœleria cristata, Pers., var. *gracilis* (Boreau). Limestone hillock, Portskewet, v.c. 35, Monmouth, 3rd July, 1902. New county record for both type and variety.—E. S. Marshall.

Poa bulbosa, L. Brighton Racecourse, v.c. 14, 19th May, 1902.—Coll. C. P. Hurst. Comm. F. H. Davey.

P. nemoralis, L., var. *Parnellii*, Hook. and Arn.? Wyre Forest, Worcestershire, 2nd June, 1901. For naming only.—H. S. Thompson. Starved *nemoralis* only.—A. B.

P. compressa, L., var. *sub-compressa* (Parn.). Wall-top at Ledbury, v.c. 36, Hereford, 27th July, 1902. Mr. A. Bennett writes in reference to a specimen sent him, "Between *Poa compressa* and *P. polynoda*, Parn. Syme says there is no constant correlation of distinctive characters, and *subcompressa* comes between them. Hackel names a queried '*polynoda*, *Parn.*,' simply '*P. compressa*.' A. B."—S. H. Bickham.

P. trivialis, L., var. *glabra*, Doell. Coast, Stradbally, S. Kerry, 24th June, 1902 (I believe the same as L. C. 1812, b, var. Kœleri).—E. S. Marshall.

Glyceria pedicellata, Townsend. Wet ditch, Knighton, Leicestershire, 30th July, 1902.—W. Bell. = *G. fluitans* × *plicata*.—F. T.

Festuca ———. Hawkesyard, Staffs., June, 1902.—H. P. Reader. *F. rubra*, L., named by Mr. A. Bennett. Not distributed.—H. W. P.

F. rubra, L., var. *grandiflora*, Hackel. Sandhills, Exmouth, v,c. 3, S. Devon. The first sheet (which bears his initials) was sent to the Rev. E. F. Linton, who added, "This sheet seems quite right for *F. rubra* var. *grandiflora*, Hackel."—S. H. Bickham.

F. elatior, L. × *Lolium perenne*, L. Meadow at W. Wittering, W. Sussex, 13th July, 1902. Gathered in company with Messrs. Marshall and Salmon, who thought that there were two plants growing together, the hybrid and the loliaceous form of *Festuca pratensis*. I fear there may be a mixture here.—A. H. Wolley-Dod. The top sheet (returned to Major Wolley-Dod.—H.W.P.) looks to me like the hybrid, but I am doubtful whether any of the rest is more than the loliaceous form of *F. pratensis*.—E.F.L.

F. arundinacea, Schreb. (1) Dry waste ground near the shore, Exmouth. (2) Edge of brackish ditch, Starcross, both v.c. 3, S. Devon, 23rd September, 1902. "Yes, I agree to these as *arundinacea*. E. F. L."—S. H. Bickham.

Bromus giganteus, L., var. *triflorus*, Syme. Edge of woodland near Ledbury, v.c. 36, Hereford, 11th Sept., 1902. Mr. A. Bennett writes on a specimen submitted, "I believe fairly represents Smith's *triflora*. In Eng. Bot. Syme seems the first to place it under *Bromus*." —S. H. Bickham.

B. madritensis, L. Thatch of ruined cottages and tops of dry fences, Carrick Beg., Co. Waterford, July, 1902. — Coll. H. W. Lett and C. H. Waddell. Comm. H. W. Lett. This, and also the following, is A. *Curtisii*, Bab. of the London Catalogue.—H. W. P.

B. madritensis, L. On old walls of houses, Carrick-on-Suir, Co. Tipperary, Ireland, 10th July, 1902.—Coll. H. W. Lett and C. H. Waddell. Comm. C. H. Waddell.

B. rigidus, Koch. Quenvais, Jersey, 26th May, 1897. —D. T. Playfair.

B. rigidus, Roth. Par., v.c. 2, E. Cornwall, perfectly wild, 7th June, 1902.—F. H. Davey. This is *B. rigidus*, Koch non Roth. (=*B. maximus*, Desf.). Only 2 specimens sent.—H. W. P.

B. macrostachys, God. Waste ground, West Dock Reservation, Hull, E. Yorks, v.c. 61, Aug., 1902.—C. Waterfall. Is *B. unioloides*, H. B. and K. Named by Dr. A. B. Rendle.—H. W. P.

Lolium (form or hybrid ?). Waste ground, Belfast Harbour, Co. Down, July, 1902.—H. W. Lett and C. H. Waddell. For naming only.—C. H. Waddell. Seems to me rather an abnormal form, perhaps due to situation, than a hybrid·—E. F. L. Of *Lolium perenne*, L., I presume.—H. W. P.

Asplenium Adiantum-nigrum, L., var. *obtusum*, Kit. and Milde. Walls, St. David's, Pembrokeshire, Aug., 1902.—Coll. E. Armitage. Comm. A. Hosking.

Lastrœa rigida, Presl. Limestone Rocks, Hutton Roof, Westmoreland, 3rd Aug., 1899.—D. T. Playfair.

Equisetum pratense, Ehrh. Cron Glen, near Belfast, Co. Antrim, Ireland, May, 1901.—C. H. Waddell.

E. variegatum, Schleich, var. *Wilsoni* (Newm.) Killarney, N. Kerry, 28th June, 1902.—E. S. Marshall.

Chara ———. Victoria Park, near Belfast, Co. Down, 9th July, 1902.—Coll. H. W. Lett and C. H. Waddell. Comm. H. W. Lett. Is *C. vulgaris*, L., var. *papillata*, Wallr.—H. and J. G.

C. polyacantha, Braun. Blackfleet Broad, E. Norfolk, 29th May, 1902. Fide H. and J. Groves.—C. E. Salmon.

SUBSCRIPTIONS, 1902.

	£	s.	d.
Bell, W.	0	5	0
Bickham, S. H.	0	5	0
Bostock, E. D.	0	5	0
Cleminshaw, E.	0	5	0
Cotton, Mrs.	0	5	0
Crawford, F. C.	0	5	0
Crosfield, A. J.	0	5	0
Davey, F. H	0	5	0
Duncan, J. B.	0	5	0
Ewing, P.	0	5	0
Geldart, H. D.	0	5	0
Goode, G.	0	5	0
Goss, H.	0	5	0
Gregory, Mrs.	0	5	0
Griffith, J. E.	0	5	0
Hayes, A.	0	5	0
Higgins, Miss D. M.	0	5	0
Hilton, T.	0	5	0
Hosking, A.	0	5	0
Hume, A. O., C.B.	0	5	0
Humphreys, J.	0	5	0
Jackson, A. B.	0	5	0
Lett, Rev. Canon	0	5	0
Marshall, Rev. E. S.	0	5	0
Mennell, H. T.	0	5	0
Nicolson, D.	0	5	0
Parsons, Dr. H. F.	0	5	0
Playfair, Dr. D. T.	0	5	0
Pugsley, H. W.	0	5	0
Reader, Rev. H. P.	0	5	0
Routh, T. E.	0	5	0
Salmon, C. E.	0	5	0
Salmon, E. S.	0	5	0
Scott Elliot, Prof. G. F.	0	5	0
Smith, Arthur	0	5	0
Somerville, A.	0	5	0
Standen, R. S.	0	5	0
Thompson, H. S.	0	5	0
Waddell, Rev. C. H.	0	5	0
Waterfall, C.	0	5	0
White, J. W.	0	5	0
Wolley-Dod, Major A. H.	0	5	0
	£10	10	0

31st December, 1902.

In addition to the above the Subscriptions of seven members have been received for the year 1903.

TREASURER'S BALANCE SHEET, 1902.

Receipts.

	£	s.	d.	£	s.	d.
Balance on hand from 1901 ...				1	12	9
Subscriptions (42), 1902 ...				10	10	0
Special Contributions in aid of the Club's funds :—						
"Donation"	1	0	0			
Mrs. Cotton	1	0	0			
H. T. Mennell, Esq. ...	1	0	0			
				3	0	0
Reports sold				0	5	3
Bank Interest				0	0	9
				£15	8	9

Expenditure.

	£	s.	d.	£	s.	d.
Printing—						
Eighteenth Annual Report ...	8	8	0			
Desiderata List	3	5	0			
Circular and Postal Card ...	0	11	0			
				12	4	0
Working Expenses—						
Distributor	0	0	0			
Secretary, Stationery ...	0	3	0			
,, Postage of Report, Desiderata List, Circular, and Card	0	12	0			
Secretary, postage, ordinary	0	0	0			
Treasurer	0	5	0			
				1	0	0
Balance in hand...				2	4	9
				£15	8	9

ALEX. SOMERVILLE,

Hon. Treasurer.

31st December, 1902.

17 NOV 1903

THE

TWENTIETH ANNUAL REPORT

OF THE

WATSON Botanical Exchange Club,

1903-1904.

REFEREES:

J. G. BAKER, F.R.S., F.L.S., 3, Cumberland Road, Kew Gardens, Surrey.

ARTHUR BENNETT, F.L.S., 5, Edridge Road, Croydon, Surrey.

REV. W. MOYLE ROGERS, F.L.S., Chetnole, Grosvenor Road, Bournemouth West.

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HON. SECRETARY:

HAROLD STUART THOMPSON, F.L.S., 32, Bushwood Road, Kew, Surrey.

"LABOR OMNIA VINCIT."

BIRMINGHAM:
MORLAND & CO., PRINTERS, EDMUND STREET.
1904.

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1904.

THE WATSON

BOTANICAL EXCHANGE CLUB.

REPORT for 1903-4.

A total of 1659 sheets of specimens, contributed by 22 members, has been sent in; the smallest number since 1898, yet more, perhaps, than could have been expected after last year's exceptionally inclement summer. Critical genera do not seem to have fallen much in the way of collectors, *Rosa*, as usual, *Hieracium* and *Potamogeton* being very scantily represented, and *Carices*, so far as the desiderata list is concerned, not at all. The *Rubi*, however, form a conspicuous exception, having been sent in large numbers, though by few collectors. If it may be said with all due respect for these plants, and by one who is himself deeply interested in them, it seems hardly desirable that parcels should be sent in containing nothing but brambles, especially as several members, either from limited accommodation or having purchased published sets, have intimated to the distributor that they do not desire to receive *Rubi*.

The quality of the specimens is mostly good, in some cases all that could be desired. On the other hand, one parcel was received of quite intolerable slovenliness both as to matter and form, and almost entirely unfit for distribution. It cannot be too emphatically stated, or repeated, that the Club does not desire to receive or retain as members persons who think proper to send in such parcels. Aliens are not numerous, and the few sent in are in beautiful condition. The Distributor feels sure that no one can feel otherwise than pleased at receiving the splendid specimens of that most abnormal Composite — if it is one — *Ambrosia artemisiæfolia*, contributed by Mr. Charles Bailey.

In spite of the rule, a certain amount of latitude has been used in sending in plants not on the desiderata list, sometimes with the Distributor's sanction asked and obtained, sometimes without such direct sanction. The practice, no doubt, is not to be encouraged, still he has thought himself justified in accepting, on behalf of the Club, such plants, when he felt he could rely upon their being satisfactory, having little doubt that members would not be unwilling to accept an additional well-prepared example of an interesting plant, even though not among their actual desiderata. Hence it comes that such plants as *Gagea* and *Goodyera* have been distributed this year. From the general satisfaction expressed as to the parcels received it would appear that many blanks in herbaria have been happily filled up, and one of the aims of the Club so far achieved.

To Messrs. A. Bennett, W. Moyle Rogers, E. S. Marshall, E. F. Linton, and H. and J. Groves, the thanks of the Club are due for examination of specimens and reporting on them.

The following is a list of contributing members :—

Mr. C. Bailey	90
Mr. W. Bell	70
Mr. H. S. Bickham	279
Mrs. E. Cleminshaw	80
Mrs. Cotton	18
Mr. F. C. Crawford	61
Miss A. Geldart	45
Miss Higgins	40
Mr. A. Hosking	192
Mr. A. B. Jackson	27
Rev. Canon Lett	91
Rev. E. F. Linton	30
Mr. A. Loydell	34
Rev. E. S. Marshall	68
Mr. T. E. Routh	26
Rev. H. P. Reader	55
Mr. C. E. Salmon	50
Mr. A. Somerville	42
Mr. R. S. Standen	106
Mr. H. S. Thompson	146
Rev. C. H. Waddell	50
Major A.H.Wolley-Dod	59
	1,659

H. P. READER,

Distributor for the year 1903-1904.

The Hon. Treasurer suggests that Members might, without being applied to, kindly send in during January their subscriptions, which fall due at the beginning of each year, as this would lighten the labours of the office, and be to the advantage of the Club.

It is with sincere regret that we put on record in the Report the death of Dr. D. T. Playfair, F.L.S., of Bromley, and of Mr. James T. Powell, who acted as Hon. Treasurer to the Club from 1891 until 1900, as mentioned in the recent circular.

H. STUART THOMPSON,

Hon. Secretary.

Ranunculus, sp.? Saddington, Leicester, 6th June, 1903.—W. Bell. Material insufficient to name, probably a form of *R. peltatus.*—A. B.

R. peltatus, var. Middlesex, 20th May, 1903.—A. Loydell. May be this, but it is not possible to name such a specimen.—A. B.

Ranunculus, sp.? Gravesend, W. Kent, 19th July, 1903.—A. Loydell. *R. Drouetii,* Godr.—A. B.

Ranunculus, sp.? Brackish ditches, Gravesend, W. Kent, 6th June, 1903.—A. Loydell. Probably a *Drouetii* form.—A. B.

R. peltatus, var. *truncatus.* Pond near Breadsall, Derby, June, 1903.—T. E. Routh. I believe correct.—A. B.

Ranunculus, sp.? Cornwall, 19th June, 1903.—A. Loydell. A small form of *R. Baudotii,* Godr.—A. B.

R. flammula, L. var. *reptans,* Lej. and Court. (1828-1831). Llanberis, 19th September, 1903.—S. H. Bickham. I do not know this variety. For me, this is simply a rooting lake-side state, much nearer to the type than var. *radicans,* Nolte.—E.S.M. Only a var. of *R. flammula,* L.; nothing, of course, to do with *R. reptans,* L., found in Scotland and the Lake country (though I am not sure that the latter is the true plant). With regard to the plant that Syme in E.B. ed. 3 calls var. *pseudo-reptans,* no general accord amongst authors as to the name it should bear is to be found. I have not been able to trace it back further than Wallroth's Sched. Critic. p. 289 (1822), where he mentions this plant under the name of *tenuifolius.* Ascherson and Graebner, Fl. Flachl. p. 336, (1899) refer the name *tenuifolius* to Nolte Nov., but no such name occurs in the 1828 ed. Prahl in Fl. Schl. Holstein (1890) adopts the name var. *gracilis,* Meyer, giving as a synonym *radicans,* Nolte.—A.B.

Nasturtium officinale, R. Br. var. *siifolium,* Reichb. Nine Wells, Cambs., October, 1903. — A. Hosking. Correct, I think, though often much larger. Are the so-called vars. *siifolium* and *microphyllum* really more than extreme states? I doubt it.—E.S.M. True *siifolium* is often two feet long, with purple stems, &c.—A.B.

Arabis hirsuta, R. Br. var. Near Malvern Link, Worc., 7th June, 1903.—S. H. Bickham. I believe this form of *hirsuta* to be the *A. hirsuta* var. *incisa*, Wallroth Sch. Cat. (1822). I have it also from cliffs in Argyle, gathered by Mr. Macvicar. I should like to have seen ripe fruit.—A.B. Only one specimen of this sent.—H.P.R.

Erophila præcox, DC. Malvern Wells, Worc., 28th April, 1903.—S. H. Bickham. Correct, I believe.—A.B.

Cochlearia alpina? Ben Lawers, alt. 3,000 ft., 1903.—E. Cleminshaw. The only specimen in ripe fruit sent to me has veinless pods, and is certainly *C. micacea*.—E. S. Marshall. From the flowers and foliage of the remaining specimens I judge them to be the same. *C. alpina*, H. C. Watson, is usually a coarser plant, with larger and more succulent root leaves.—E.S.M.

C. alpina. H. C. Wats. Upper Teesdale, 13th June, 1903.—H. S. Thompson I have gathered this plant in the same locality, and believe it to be rightly named, though the habit approaches that of *C. danica* more nearly than usual. The root, however, appears to be perennial, whereas *C. danica* is usually, if not always, annual. Beautifully dried.—E.S.M.

Viola lutea, Huds. var.? Craig Cailleach, Perth, August, 1903.—E. Cleminshaw. This is the large flowered var. *amœna*, Huds. of *V. lutea*. It also grows on Ben Lawers. I think Mr. Baker has lately given it a special subvarietal name. — E.S.M. Yes, sub-var. *insignis*.—H.S.T.

Lychnis Viscaria, L. Blackford Hill, Edinburgh, 1903.—F. C. Crawford.

L. alpina, L. Little Culrannoch, Clova, Forfar, 1903.—F. C. Crawford.

Sagina, sp. Ben Cruban, near Killin, and Ben Lawers, Perth, August, 1903.—E. Cleminshaw. *S.*

procumbens, L. form. In some respects these approach var. *conferta,* Norman, but do not fully agree.—A.B. Both *S. procumbens.*—E.S.M.

Buda rupestris. Great Orme's Head, 15th September, 1903.—S. H. Bickham. Correct.—A.B.

Lotus hispidus, Desf. Sandy ground by the sea, Southbourne, S. Hants, July, 1903.—E. Cleminshaw.

Spirœa denudata, Bœnn. Malvern Link, Worc., 8th August, 1903.—S. H. Bickham.

Rosa involuta, Smith, var. *Wilsoni,* Borr. Slope above Menai Strait, 17th September, 1903.—S. H. Bickham.

Rosa arvensis, Huds. var. *gallicoides,* Baker. Open wood, Newland, near Malvern, Worc., September, 1903.—S. H. Bickham and R. F. Towndrow.

Rubus. Co. Down, Scrabo Hill, 21st July, 1903.—W. Lett. Material too undeveloped. Looks like a hybrid, but may belong to the Co. Down broad-leaflet form of *R. Lindleianus,* Lees, referred to on p. 4 of the 1896-97 Report.—W.M.R.

R. Lindleianus, Lees. Co. Down, Aghaderg, Greenan, August 2nd, 1903.—W. Lett. Yes, I believe, the Co. Down form of *R. Lindleianus,* with broad terminal leaflet referred to on p. 4 of the 1896-97 Report, but with panicles too undeveloped to be characteristic. —W.M.R.

R. macrophyllus, W. and N. Aghaderg, Co. Down, August, 1903.—W. Lett. A strong state of *R. pulcherrimus,* Neum.—W.M.R.

Rubus ——. Longhadian, Co. Down, 26th August, 1903.—W. Lett. A very strong form of *R. Selmeri,* Lindeb., under which must also go, I believe, Canon Lett's plant from Ballintaggart, for which he has suggested the name *R. corylifolius,* Sm.

R. thyrsoideus, Wimm. Leckington, Leicestershire, August. 1903.—T. E. Routh. Yes.—W.M.R.

R. silvaticus, W. and N. Hedge near Saintfield, Co. Down, August, 1903.—C. H. Waddell. Yes; a strong form of *R. silvaticus*, Wh. and N., with panicle prickles less conspicuously acicular than type.—W.M.R.

R. silvaticus, W. and N. Lower Wych, Cheshire, 5th August, 1903.—A. H. Wolley-Dod. Yes.—W.M.R.

R. villicaulis var. *Selmeri*, Lindeb. Roadside between Tanderagea and Scarva, Co. Armagh, August, 1903.—W. Lett. Certainly not *R. Selmeri*; but apparently mixed pieces. Stems seems to be all good *R. Schlechtendalii*, Weihe, and the panicles *R. Lindleianus*.—W.M.R.

R. macrophyllus v. *Schlechtendalii*, Weihe. Aghaderg, Co. Down, August, 1903.—W. Lett. I think a strongly aciculate form of *R. macrophylloides*, Genev., itself a glandular and aciculate var. or form of *Schlechtendalii*. New record for Co. Down.—W.M.R.

R. rhamnifolius, W. and N. Aghaderg, Co. Down, broad road near McKain's, 24th August, 1903.—W. Lett. *R. danicus*, Focke, but material too imperfect to be characteristic.—W.M.R.

Rubus ———. Lispagonnell, at broad road, Co. Down, 13th July, 1903.—W. Lett. For positive determination maturer specimens are most desirable. At first sight remarkably like *R. iricus*, but differing from type in being considerably glandular and aciculate (stem and panicle), in the prickles more scattered and unequal, and the panicle apparently less cylindrical above. The leaflets also are narrower and more incised. The whole plant, however, is so glandular and aciculate as to suggest the question whether it will not have to go to the *Egregii*, next to *R. adenanthus*, as new to the British Isles at least. A good series in flower and fruit, and with mature stem pieces, would make a decision possible.

R. pyramidalis, Kalt. Laxey, Isle of Man, 13th August, 1903.—C. H. Waddell. Yes; a small but characteristic form.

R. leucostachys, Schleich. Broad road near Meenam Tollbar, Co. Down, 1903.—W. Lett. Yes, a very handsome form, with dark, shining, concave leaves, stem less constantly densely hairy and flowers occasionally larger than in type. It is at least locally common in Co. Down and E. Armagh.—W.M.R.

R. leucostachys var. *gymnostachys*, Genev. Edge of wood, Bangor, Co. Carnarvon, 21st September, 1903.—S. H. Bickham. Yes, the well-known glandular form of that neighbourhood.—W.M.R.

R. adenanthus, Boul. and Gill. Below Peckforton Castle, Cheshire, 5th September, 1903.—A. H. Wolley-Dod. I think a very strong form of this.—W.M.R.

R. Lettii, Rogers. Ballintaggart, Co. Down, 28th July, 1900.—W. Lett. Yes.—W.M.R.

R. mucronatus, Blox. Cotherstone, N. W. Yorks., August, 1903.—H. S. Thompson. New record for v.c. 65.—W.M.R.

R. infestus, var. *virgultorum*, Ley. Near Malpas, Cheshire, 8th August, 1903.—A. H. Wolley-Dod. Yes.—W.M.R.

R. carpinifolius, W. and N. Greenan, Co. Down, 13th August, 1903.—W. Lett.

R. carpinifolius, W. and N. Between finger-post and Lough, Aghaderg, Co. Down.

Rubus ———. Greenan, close to sluice house, Co. Down, 28th July, 1903.—W. Lett. Three above species are *R. Borreri*, Bell Salt.—W.M.R.

R. dunensis, Rogers. Aghaderg, Co. Down, 3rd Aug., 1903.—W. Lett. Yes.—W.M.R.

Rubus ———. Rhododendron clump, Aghaderg Glebe, Co. Down, 26th August, 1903.—W. Lett. Apparently quite barren. Probably a hybrid, and perhaps *R. echinatoides* × *Selmeri*.—W.M.R.

R. Radula var. *echinatoides*, Rogers. Aghaderg Glebe, in Rhododendron clump, Co. Down, 31st July, 1903.—W. Lett. Yes.—W.M.R.

R. rudis, W. and N. Glen Gorse, Leicestershire, August, 1903.—W. Bell and A. B. Jackson. Yes.—W.M.R.

R. oigoclados var. *Newbouldii*, Bab. Ballintaggart, Co. Down, 20th July, 1903.—W. Lett. Probably enough a form of *Newbouldii*, but the specimens are too imperfect for satisfactory determination.—W.M.R.

Rubus ———. Caskum, Co. Down, 15th August, 1903.—W. Lett. Seems to be *R. Newbouldii.*—W.M.R.

R. Griffithianus, Rogers. Near Blackfardby, Derbyshire, 11th August, 1903.—T. E. Routh. Yes, new record for Derbyshire.—W.M.R.

R. mutabilis, Genev. Aghaderg, Co. Down, 3rd August, 1903.—W. Lett. No doubt from the same thicket to which Canon Lett took me in 1901, about which in *J. of B.* for that year I wrote as follows: "One clump, in shade and so hardly typical, making some approach towards var. *nemorosus*, Genev. An imperfect specimen from this thicket was wrongly named by me *R. adornatus*, P. J. Muell, for the Watson Botanical Exchange Club (see Report 1900-01, p. 17)." These 1903 specimens are less strongly armed than the earlier ones, but still, on the whole, seem to go best to the very aggregate *R. mutabilis.*—W.M.R.

R. pallidus, W. and N. Aghaderg, Co. Down, 25th August, 1903.—W. Lett. Much too scrappy for certainty.—W.M.R.

R. infecundus, Rogers. Near Calte, Derbyshire, August, 1903.—T. E. Routh. And Smisby, Derbyshire, July, 1903.—W. Bell. Both sets very characteristic.—W.M.R.

Rubus ———. Wood below Wharncliffe Crags, S.W. Yorks, 3rd September, 1903.—H. S. Thompson. I am quite unable to name this. The stems are extraordinarily weak for such *fusco-ater* like panicles. Perhaps Mr. Thompson may be able to get fuller material with mature stems in a more favourable season than that of 1903.—W.M.R.

R. hibernicus, Rogers. Aghaderg, Co. Down, 26th August, 1903.—W. Lett. Not *hibernicus*, but my *dasyphyllus*.—W.M.R.

R. corylifolius, Sm. var. *cyclophyllus*, Lindeb. Hedge, Saintfield, Co. Down, 3rd Sept., 1903.—C. H. Waddell. Yes ; a very strong form and very like a Clyde-side plant at Ashton. Record for Co. Down.—W.M.R.

Sedum Telephium, L. Luton, Beds., 2nd August, 1900.—D. M. Higgins.

Callitriche obtusangula, Le Gall. Cuckfield, Sussex, 8th July, 1903.—R. S. Standen. *C. stagnalis*, Scop.—A.B. I can find no fruit, but the leaf-rosettes are not at all like those of *C. obtusangula*. Such examples are hardly determinable, but I believe it to be *C. stagnalis*, Scop.—E.S.M.

C. obtusangula, Le Gall. Ditch, Sawley Bridge, Leic., 21st June, 1903.—A. B. Jackson. The rosette-leaves and fruit resemble *obtusangula*, but it has the submerged leaves of *C. hamulata*, Kuetz., with truncate-emarginate tips, forming a slight "hook" on either side. I suspect that it may be *C. Lachii*, Warren, of which I have seen no specimens. Possibly the true explanation is a hybrid origin, *viz.*, *C. hamulata* × *obtusangula*, the habit being fairly intermediate. Very interesting.—E.S.M. *C. obtusangula*.—A.B.

Circæa alpina, L. var. *intermedia*, Ehrh. Weed, Saintfield, Co. Down, 20th August, 1903. — C. H. Waddell. Yes, *C. intermedia*, Ehrh. — A.B. Quite characteristic.—E.S.M.

Epilobium montanum × *obscurum* ? Ditch-side, Malvern Wells, Worc., 1903.—Coll., S. H. Bickham and R. F. Towndrow. Evidently a hybrid, but I see no good evidence of *obscurum*, and consider it to be *E. montanum* × *parviflorum*, with glabrescent buds and capsules.—E.S.M.

E. montanum × *parviflorum* ? Coppice near Bransford Road, Worcester, 1903.—S. H. Bickham and R. F. Towndrow. Correct.—E.S.M.

E. montanum×*parviflorum*? Edge of a coppice near Malvern, Worc.—S. H. Bickham and R. F. Towndrow, 1903. Correctly determined.—E.S.M.

E. Lamyi, F. Schultz. In a coppice near Bransford Road, Worc., July and October, 1903.—S. H. Bickham.

Apium repens, Hook. fil. Skipwith Common, S.E. Yorks., 8th August, 1903.—H. S. Thompson.

Carduus crispus×*nutans*. Clundon Downs, Surrey, 1903.—A. H. Wolley-Dod. A very good intermediate.—E.S.M.

Arctium intermedium, Lange. Capel Curig, 25th Sept., 1903.—S. H. Bickham. *A. minus*.—A.B.

Arctium intermedium, var. *subtomentosun*, Ar. Benn, Bodorgan, Anglesea, 23rd September, 1903.—S. H. Bickham. I think correct, but not nearly so tomentose as the original specimens.—A.B.

Artemisia vulgaris, L. var. *coarctata*, Forcell. R. Ogwen, Carnarvonshire, 21st September, 1903.—S. H. Bickham. Quite characteristic.—E.S.M. The reference should be Forsell. (Forselles) who first described it a species (1807) and afterwards as a variety in Fries' Flora Hollandica (1817).—A.B.

Ambrosia artemisiæfolia, L. Sandhills, St. Anne's-on-the-Sea, W. Lancs., 19th September, 1903.—C. Bailey. A long and beautiful series of this remarkable alien.—H.P.R.

Crepis succisæfolia, Tausch. Hillside above High Force, Teesdale, Durham, 2nd August, 1903.—H. S. Thompson and A. O. Hume.

Hieracium auratum, Fr. Upper Teesdale, Durham, 2nd August, 1903.—H. S. Thompson. This has not the foliage, pubescence, or habit of *H. auratum*. The ligules are somewhat pilose-tipped, and I consider that it comes under *H. strictum*, Fr.—E.S.M. The name *auratum* was attached to these specimens owing to a misunderstanding between the collector and a correspondent, who gathered the species in the same locality.—H.S.T.

H. maculatum, Sm. Lindfield, Sussex.—R. S. Standen. The same plant, I believe, which is found growing on old walls at Chichester, but more luxuriant, owing to situation.—E.S.M.

Taraxacum officinale, Web. var. *udum*, Jord. Malvern Link, Worc.—S. H. Bickham. The outer phyllaries somewhat recall *T. udum*, Jord. (described as a species), which I prefer to place as a variety of *T. palustre*, DC. However, the foliage will not do at all for that, and inner phyllaries are appendaged at the tip. I think that it is either *T. lævigatum*, DC. or *T. erythrospermum*, Andrz. There is no fruit to go by.—E.S.M.

Primula acaulis × elatior. Hardwick Wood, Cambs.—A. Hosking. Correct, I believe, very like my own specimens from Saffron Walden.—E.S.M.

P. elatior, Jacq. On recently-cleared ground in Brockley Wood, Essex, 9th April, 1898.—C. Bailey. Rightly named; the recent clearance accounts for its being stunted.—E.S.M.

Erythræa littoralis, Fr. Portincross, Ayr, 4th Aug., 1898.—A. Somerville. The plant so named by British botanists. — A.B. Correctly named; showing the characteristic puberulous leaves and stem well under a lens.—E.S.M.

Erythræa capitata, Willd. b *sphærocephala*, Towns. Durlstone Head, Dorset, 1st July, 1903.—E. Cleminshaw. I believe correct.—A.B. Yes; but Mr. Townsend does not now consider his variety to be worth distinguishing. —E.S.M.

Scrophularia umbrosa, Dum. Whitnesh, Warw., 13th September, 1903.—A. B. Jackson. I believe correct. —A.B.

Bartsia Odontites, Huds. a. *verna*, Reichb. Glen Gorse, Leic., August, 1903.—W. Bell. Correct, I believe.—A.B.

Orobanche purpurea, Jacq. On *Achillea Millifolium*, Sidestrand, E. Norf., 11th July, 1889.—H. Geldart. Comm., A. Geldart.

Mentha sativa, L. b. *paludosa*, Sole. Leigh, Worc., 17th August, 1903.—S. H. Bickham. I think not Sole's *paludosa*.—A.B. For naming only.—H.P.R.

Thymus Chamædrys, Fr. Luton, Beds., 7th Sept., 1903.—D. M. Higgins. Difficult to see the habit of growth, on which so much depends, from the specimens being fragments, instead of entire plants ; but I doubt the name.—A.B.

Lamium hybridum, Vill. × *purpureum* var. *decipiens*, Sonder. ? Coton, Cambs., September, 1902.—A. Hosking. The plant has not the aspect of *decipiens* or *hybridum*, so may be a hybrid.—A.B. Nearest to *L. hybridum*, but it looks sterile. If Messrs. Linton are right in thinking *L. purpureum* var. *decipiens*, Sonder, to be *L. hybridum* × *purpureum* the suggested theory becomes improbable. The small size of the leaves also inclines me to leave it as simply *L. hybridum*, Vill.—E.S.M.

Salicornia lignosa, Woods. Bosham Creek, Sussex, 6th September, 1900.—R. S. Standen. Yes ; see Report for 1901, p. 19.—A.B.

Polygonum maculatum, Trim. and Dyer. Bosham' Sussex.—R. S. Standen. Yes ; seems to be between var. *densum* and var. *gracile*.—A.B. I have gathered this close by.—E.S.M. Also, Clover field, Malvern Wells, Worcester, 3rd September, 1903.—S. H. Bickham. I think rightly named ; a form of arable land, with leaves white-felted beneath, and unspotted stem, which I have seen in Kent.—E.S.M. The var. *densum* of Trim. and Dyer, *J. of B.*, p. 37. (1871) A.B.

Rumex obtusifolius, L. × *viridis*, Sibth. Upton-on-Severn, Worc., 6th September, 1903.—S. H. Bickham and R. F. Towndrow. Certainly the perianth-segments do look intermediate, but the plant is not advanced enough to be quite sure.—A.B.

Urtica dioica, L. var. *angustifolia*, A. Blytt. Newstead Road, Leic., 29th July, 1903.—W. Bell. An elongate leaved form of the type, to which the name as given may be applied.—A.B. Also Thorney I., Sussex, 24th Sept., 1903.—R. S. Standen. *Urtica dioica*, L. var. *microphylla*, Hausm.—A.B.

Goodyera repens, R. Br. Bervie, Kincard. under firs, 4th September, 1903.—A. Somerville.

Epipactis violacea, Bor. Paxhill, Lindfield, Sussex, 7th September, 1903.—R. S. Standen.

Orchis simia, Lam. Goring, Oxford, 26th May, 1903. —E. S. Marshall. Of this fine series Mr. Marshall says, "all cut with scissors, to avoid injuring the root."—H.P.R.

Herminium Monorchis, R. Br. Selsley Hill, W. Glos., July, 1903.—H. P. Reader.

Damasonium stellatum, Pers. Chailey Common, Sussex, 25th July, 1903.—R. S. Standen.

Carex curta, Good. Mugdock Loch, Stirling, 9th June, 1903.—A. Somerville.

C. digitata, L. Pen Wood, near King Stanley, W. Glos., April, 1903.—H. P. Reader.

Deschampsia discolor, Roem. and Schult. Skipwith Common, S.E. Yorks, August, 1903.—H. S.Thompson. An interesting addition to a Yorkshire vice-county. It seems to have only one other known station in the county (S.W. Yks.), see Naturalist, p. 63 (1904). Since the publication of Top. Bot. ed. 2 (1883), it has been recorded, or specimens sent to me, from 15 additional counties or vice-counties, ranging from Dorset to Scotland.—A.B.

Phleum pratense, L. b. *nodosum* (Linn.) Gt. Orme's Head, Carnarvon, 18th September, 1903.—S. H. Bickham. Probably correct, though the glumes are darker than usual.—A.B.

Bromus sp. ? Roadside, Hills Avenue, Cambridge, September, 1902.—A. Hosking. Two species here; *Bromus arvensis*, L. (the slender one), and *B. patulus*, M.K.—A.B.

B. mollis, L. var. *Lloydianus*, Syme. Cliffs at the Lizard, Cornwall, 15th July, 1902.—A. Hosking. Apparently correct, though the awns not so "bent back in fruit" as Syme describes.—A.B.

B. secalinus, L. b. *velutinus*, Schred. Allotment ground, Malvern Link, Worc., 13th July, 1903.—S. H. Bickham. Correct, I believe, though the sheaths are less pubescent than usual.—A.B.

Nitella sp. ? Tank in York nursery gardens, Sept., 1903.—H. S. Thompson. The tank in which it grows contains some water-lilies from America, as well as British *Sagittaria*, etc.—H.S.T. Apparently a sterile form of *N. mucronata*, Kuetz.—H. and J. G. The *Nitella* is *N. mucronata*, Kuetz., first discovered for Britain in W. Sussex, then in N. Hants, Bedford, Norfolk, Cambs., and Oxon. This is an interesting extension northwards. They are larger specimens than any I have seen.—E.F.L.

NOTE.—Copies of back numbers of the Report, except the first five and the 8th, can be obtained from the Hon. Sec., at 6d. each.

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31st December, 1903.

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31st December, 1903.

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